

AMERICAN VETERINARY REVIEW.

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All communications for publication or in reference thereto should be addressed to Prof. Roscoe R. Bell, Seventh Ave. & Union St., Borough of Brooklyn, New York City.

EDITORIAL.

GRANDEUR OF THE VETERINARY PROFESSION.

While there are many things in common between the medical and veterinary professions, there are also many points of difference. The medical man is a physician and nothing more, when there is included under this term the exactions of sanitary science and police and the various specialties which the demands of the times have imposed upon that profession; it, therefore, has its surgeons, who in most instances openly declare that they know but little of general practice, and hold their heads just a little bit higher than the ordinary practitioner; its gynæcologists confine themselves to their own department so closely as to ignore almost completely other branches of medicine; its oculists and aurists would never be applied to for opinions on other subjects. So, too, there are men who do not go beyond the diseases of the lungs and throat, and not a few delve deeply into the mysteries and intricacies of the wonderful nervous system to the exclusion of every other phase of medicine. The general practitioner treats the every-day diseases as he meets them in his clientèle, referring any serious lesion of the various apparatuses to the particular specialist with whose department the disease or defect may be associated. In this way the practice of human medicine has become narrowed down to an agglomeration of specialties; and while the student at college must obtain a general knowledge of the whole field, his

after-studies are devoted to the channel which his tastes have led him to adopt as his life-work.

Not so with the veterinarian, who must not only make of himself a specialist in every department, but must include within his radiating information a knowledge of the diseases and characteristics of all domesticated animals; and not only of each species of animal, but of each family of the same species. To illustrate these remarks, he is both physician and surgeon to the soliped, and included in this type of patient he must know the characteristics of the thoroughbred, the trotter, the roadster, the high-stepping light-harness horse, the heavier carriage horse, the saddler, the general purpose horse, the three-quarter trucker, and the heavy drafter, as well as the uncertain family of ponies. While a broad education in veterinary medicine will answer in the application of therapeutics to all, each family has its peculiarities, points of value and points of objection, which must fall within the knowledge of the successful general practicing veterinarian. To achieve a mastery of this large field the veterinarian must include that department which is certainly as large and as difficult as any specialty in our sister profession, and the prediction has often been made that in the large cities at least it will yet assume that dignity, and become a "special" branch of veterinary medicine. Surely the frequency and importance of lameness in the horses of our cities especially require the closest and most intelligent study of veterinarians, and it is well known that some men become better diagnosticians than others, principally on account of a taste or a natural bent for a study of the defects of the locomotory apparatus. Added to the scope of this varied information he must have acquired familiarity with breeding, and have become a judge of form and action.

Were the veterinarian to cease at this point he could not hope to be equal to the demands of general practice; for he must be as familiar with the diseases, breeds, characteristics, and traits of the dog as with the horse, and there is more dissimilarity between the two classes of patients than between man

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and the canine. He emerges from the stable and enters the parlor, and needs to be as versatile in the one as in the other. While his prescription in the former may have demanded that the druggist shall compound four grains of strychnia for a single dose, he asks in the latter that the pharmacist be careful not to exceed the sixty-fourth of a grain of the same drug lest it prove fatal to his delicate little toy-terrier patient. If the babe is the most difficult patient the human physician has to diagnose and treat, surely the veterinarian can equal it in his canine practice.

But the horse and the dog do not exhaust by any means the scope of veterinary versatility, for a very profitable department of his avocation lies among his ruminating patients. Cattle practice, with many diseases not known in any other species of animal, is the chief reliance of many of the members of our profession; and with this branch more than with any other the demands of sanitary medicine are most pronounced. Bacteriology must be one of his familiar studies, and its developments can only be kept pace with through the medium of our monthly magazines, so rapidly are new facts being brought to light by the incessant researches of the observers of two continents.

Only the demands of space in this month's REVIEW curtails the length of the enumeration of the variety and scope of the knowledge which he should possess, for we have not even finished with the recital of his patients, since we have omitted the hog, the cat, and even birds, which upon the European continent, at least, are demanding the services of members of our profession. This same veterinarian whom we have shown must be proficient in all these departments, cannot feel that he is master of his profession until competent to fill the post of sanitarian, for he must include such a position with his local board of health, and here his proficiency in meat and milk inspection will be thoroughly tested.

We contend, therefore, that the conscientious and educated veterinarian should be considered as superior in every sense to his medical brother, and when it has been possible for higher

preparatory education to be successfully launched in this country his superiority will be recognized and acknowledged. We are getting there fast enough; no science can point to the same amount of advancement in the same length of time. To progress too rapidly would be false and fictitious, without that stability necessary to produce an enduring foundation.

It behooves us all to follow every avenue, then, that can lead to knowledge. With the magnificent programme of the forthcoming meeting of the United States Veterinary Medical Association before you, which will be found elsewhere in this issue of the REVIEW, how can you fail to be present? With your veterinary journals publishing a thousand pages of valuable material every year, how can you withhold your financial support and educational coöperation? If you are contributing to the two greatest sources of professional progress—the associations and the magazines—you can do even more by seeing to it that your veterinary friends do likewise.

THE NEW YORK STATE V. M. SOCIETY.

AT an exact date not yet determined, but probably during the week following the U. S. V. M. A., the Empire State Association will convene in New York City. Although the programme was not ready for announcement when the REVIEW closed its forms, we had a pleasant interview with the energetic Secretary, and from him we learned that arrangements were well under way for a profitable and pleasant annual meeting. The New York City members were insistent in securing the meeting for their city, and they should make it certain that nothing is left undone to eclipse all former years.

DR. FRANK H. MILLER contributes to the profession, through the REVIEW for this month, a valuable article on that bane of long-eared dogdom, "otorrhœa," or "canker." His contribution is so important, so scientific, and so practical that we feel very fortunate in having secured it for our readers, and refer to it with pleasure.

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WE regret that the conclusion of Dr. Liautard's translation of MM. Nocard and Roux's important article on "The Microbe of Pleuro-pneumonia" could not be published in this issue, for the reason that the photo plates illustrating it are held in the custom house, and despite our earnest efforts their exit could not be hurried. Its publication will therefore be delayed until the September issue.

A NEW SURGICAL OPERATION on the laryngeal apparatus for the relief or cure of roaring in horses, termed "Arytenoideraphy," is described under "Reports of Cases," and practiced in the clinics of the McKillip Veterinary College.

HELP your profession by extending the circulation of the REVIEW.

[Written specially for the American Veterinary Review.]

OBSERVATIONS MADE IN CANINE MEDICINE.

OTITIS EXTERNA (EAR CANKER).

BY FRANK H. MILLER, V. S., 16 EAST 42D STREET, NEW YORK CITY.

In premising to consider the phenomena of inflammation, which from time to time involves that part of the epidermal appendage reflected over the inner surface of the external ear of the dog, variously known as otitis, otorrhœa, "canker," etc., I would beg to be allowed to do so strictly from the point of view of a practitioner of veterinary medicine, who, for long years cheerfully followed the fortunes of perhaps a vast majority of young veterinarians, in adhering more or less closely to lines as laid down for us by our early teachers, regarding the etiology, pathology, and therapeutics of this common and troublesome condition, oftentimes meeting success of the most indifferent and unsatisfactory kind.

That so many veterinarians should complain of like results is not at all surprising, as a glance at our English text-books with their similarity of construction will show.

They are so far compiled one from another as to beget most uniform results in treatment, whether they be satisfactory or otherwise.

The almost universal tendency in their teaching, as to this condition, is to catch the student up and drift him away among those who are ever inclined to seek difficulties in trying to establish new diseases or rehabilitate very old ones. I have long since been driven to the firm conclusion that otitis externa of the dog, far from being a distinct pathological state, said by some to have a resemblance in some of its features only to an eczema, by others classed as catarrhal, and requiring a distinct nomenclature, is plain eczema, nothing more, nothing less.

Like eczema, wherever found, the causes may be multitudinous which produce it, but from a pathological and therapeutical point of view, it is still eczema, presenting various types incidental to variation of causes and the anatomical and physiological character of the tissues involved.

It is doubtless true that perhaps quite ninety per cent. of these cases, as they are brought to us for treatment, show the so-called catarrhal feature to be in the ascendancy, yet as veterinary practice goes we seldom if ever treat a patient until the animal has suffered at least many days.

Practical experience in treating dogs almost exclusively has led me to believe that in the vast majority of these cases the initial symptoms which present themselves are substantially always those of eczema erythematosum, of the epidermis, external and close up to the point of its transition in character, and that the later defluction which is so apt to be attributed to a catarrh proper of the limiting membrane of the external ear, including the tympanum, is after all in the main the perfect counterpart of eczema madidans (or weeping eczema) so well understood as seen in other parts of the body.

If this were primarily a catarrh of deep parts of the ear, the early examination of secretions would establish the fact. Such examination, however, refutes the supposition, and post-mortem examination when made, even in severe and chronic cases,

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almost invariably reveals a remarkably healthy appearance of the tympanum and canal contiguous thereto.

In no other case can it be more difficult to tell beyond a question where eczema ends and catarrh begins than in these cases; nor is there perhaps another condition which more clearly shows the prudence of the older pathologists who claimed eczema to be a catarrh of the skin.

If we review the labors of those who have toiled upon these cases in the interest of bacteriology we find exceedingly little, indeed I may say nothing, which warrants us in setting these cases outside the pale of skin diseases.

Like eczema of other locations, we are forced to look upon it as being mainly induced by external irritation, rather than as arising from internal conditions, anatomical or physiological in nature. It is very generally said by authors to be an outcome of "filth." Well, I am perfectly willing to grant that the so-called filth is a factor in its development, but if such were more than a mere factor, and its real cause, I am satisfied that every animal would necessarily suffer, inasmuch as all alike would be sufficiently exposed.

This we know is not the case here, any more than that filth begets in all cases eczema in other parts. There are other influences quite as important as filth itself (which is at best a very ambiguous term in medicine) in the production of this eczema of the ears, and they are such as more directly determine the conditions under which such filth exists.

Upon these conditions depends the whole matter of impurities. It is only necessary for me at this time to recall the number of obstinate cases of this trouble coming under my observation, which have developed in animals subject to the most scrupulous care to prevent this accumulation of the so-called ear filth, by frequent washing, etc., to readily understand how great the difficulty an extremely small amount of impurity can cause when conditions favor, and how great and varied the same can be, and still be powerless to do harm where conditions are unfavorable to it.

In these cases we find that excessive moisture can and does produce the required conditions, and indeed may be the direct means of effectually precipitating the very condition it was intended to prevent.

The filth is composed in greater part of the accumulation of secretion of the seruminous glands and desquamated epithelial cells, and can at best be only very imperfectly removed by ordinary methods of cleansing, and the nitrogeous materials make under the action of water, especially if soap be used, a most desirable medium for the growth of those common forms of micro-organisms which abound in the ears, as well as upon the skin of the most healthy and well-cared for animals.

Thus filth, plus moisture and micro-organisms, figure jointly in the production of this condition.

That abnormal moisture is one of the prime essentials, we can safely infer from the comparative immunity which dogs with short ears enjoy, as compared with those with long, heavy, over-hanging organs. The erect ear offers the advantage of perfect evaporation, thereby rendering the action of micro-organisms comparatively inert, for certainly few would deny that such an ear would be quite as greatly exposed to both accumulation of materials and micro-organisms as would those of the pendulous form.

The cropped ear, it matters not in what breed of dogs, is one seldom involved in otitis if properly healed after operation (one good point in this fashionable mutilation).

Take this same subject, of the short, erect ear, cleanse his organs thoroughly and allow them to become perfectly dry, and with a long woollen roller bandage, bind them closely down over the sides of the head so as to effectually prevent evaporation, and allow them to remain confined in this position for two or three days and in the vast majority of cases we will cause to be developed an eczema corresponding in every particular to those cases which occur in practice, which it may take days to effectually overcome by treatment.

In this case the moisture necessary has been derived from

the tissues themselves by rendering natural evaporation impossible, and the normal secretion and desquamation of the cells has been quite ample to give the nitrogenous elements required for the activity of the micro-organisms.

Thus I maintain that the frequent douches of water, and the applications of agents dissolved in water, as almost universally indicated in text-books for the treatment of canker, is not only not indicated, but extremely detrimental to the condition.

We thereby attempt to control an inflammatory state of the skin by the very agent which has been most instrumental in its production.

To this error in treatment more than to any one other, perhaps, may be attributed the reason for the large number of these cases which go on from simple acute otitis, to chronic and proliferation dermatitis, perichondritis, etc., even in the hands of extremely careful practitioners, who, while realizing the importance of antiseptic treatment, fail utterly in its method of application.

When called upon to treat eczema madidans in other parts of the body, we would scarcely devise a line of treatment involving the free use of water, but desiccating antiseptics instead.

That constitutional tendencies in certain animals may predispose to this condition I admit, but such are unimportant as compared with anatomical peculiarities.

That changes in the circulation incidental and inseparable to such conditions, as, for instance, may be expected where dogs swim much in water, especially that of a low temperature, may and no doubt does act as a predisposing cause physiologically, I believe, but that it is often the direct and sole cause I greatly question, and especially so since we know from experience that just as we easily produce the condition in dogs which naturally enjoy great immunity by checking evaporation artificially, so can we upon the other hand effectually prevent this condition, in even the long-eared hunting dogs, which may be called upon to work almost steadily in ice cold water, provided we carefully, and thoroughly, dry the ears out with sterilized absorbent cotton each night, and by turning the ears up over the head and

retaining them in that position by means of the "net," allow of a perfect evaporation of all moisture.

Eczema of the ear, as of other parts of the body, can and does arise from the most diverse causes, but for the purpose of this article I will confine my remarks to those cases which from choice the writers describe as due to "filth," and group them under one head as due to chemical irritation.

When a case is presented for treatment I invariably make chemical as well as physical examination in connection with the history; indeed I have come to feel that a correct diagnosis and prognosis depends almost entirely upon the former.

After examining the organ, both with and without the speculum, I test the secretion with litmus paper, and nearly always find a more or less strong alkaline reaction, invariably due to the presence of free ammonia. This latter I determine by making use of Eber's admirable test as used throughout Europe, for computing the degree of decomposition in meats, before such can be detected by change in color or odor.

This test is extremely simple of application and of inestimable value, consisting of one part chemically pure hydrochloric acid, one part sulphuric ether and three parts alcohol.

The only requirements for its application is an ordinary test tube, perfectly clean and of medium calibre, and a glass rod.

It is used by pouring a few c.c. of the fluid into the tube, which should be at approximately the same temperature as the testing fluid; shake quietly about that the sides of the tube may become moistened and pour off again. While the tube is still wet, smear the tip of the rod in the secretions from the ear and carry it carefully down the tube almost to its bottom, avoiding touching the sides if possible. If free ammonia be present in the slightest quantity, a white vapor will in a very few moments settle down in the tube.

The micro-organisms which figure in this diseased condition bring about their irritation to the tissues by splitting up the nitrogenous materials (filth) and liberating an irritating gas rather than by producing a specific poison, having the power in

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all cases to set up otitis; in other words, I am convinced that any organism which can thus break up the ear secretions and accumulations is capable of producing this eczema.

I am accustomed to compute the gravity of these individual cases greatly by this test, as experience has taught me to consider those which give free ammonia as scarcely ever belonging to the chronic form, where so much structural and functional change has occurred as to place the question of permanent cure in doubt.

Where neutral, and acid reaction is gained, the conditions will be found to be quite different. In these cases the disease proper has passed over and gone, and instead of an eczema we have as a rule chronic proliferating dermatitis, perichondritis, etc., which seldom perfectly respond to treatment.

Regarding the treatment of aural eczema, as it occurs in practice, I can only say the simplest treatment only is necessary, if the selection and methods be judiciously made and carried out.

Cleansing, disinfection, and free access of air are the three all-important essentials upon which to base our treatment, but the mode of cleansing and the agents to use, as well as their mode of application, are exceedingly important points in the successful handling of these cases.

The cleansing of the ears should, from beginning to end, be with sterilized absorbent cotton applied with the ear forceps and not one drop of water should be used.

The disinfectant should be one of the most powerful, and be, at the same time, selected with most careful respect to its special adaptations in such cases, and be brought to all parts with equality and certainty.

To accomplish this satisfactorily I at first make use of hydrarg. perchlor. and spts. vini. rect. in the strength of one to one thousand. This solution I reduce one-half in strength immediately the condition begins to yield to treatment.

I have found this spirit of sublimate to far exceed all other sterilizing fluids, and attribute its qualities, first, to the high

antiseptic powers of the salt, its solubility rendering it possible to reach all parts (which powder alone cannot do satisfactorily) and also greatly to its well-known negative chemotactic action in effectually checking the migration of leucocytes, which figures so largely in these cases.

The alcohol, besides being a perfect solvent for the sublimate, causes it to penetrate to every part, and deeply into the tissues, at the same time desiccating the normal secretions present, and the tissues in general, by its affinity for water and its volatility, thereby removing the conditions under which these cases progress toward chronicity. It is to be mentioned, at this time, that these solutions should be applied once daily only, as their too frequent use stimulates unduly, and, if used heedlessly, can produce grave effects, including ulceration, etc., but is absolutely safe even in the most delicate subject when used once daily.

After the organs have been cleansed as thoroughly as possible with the cotton, pour in a very few c.c. of the spirits, and by carefully pressing the sides of the ear together repeatedly, wash it about for about one minute that it may reach all parts most completely, then allow it to escape, using cotton to dry the excess from the hair, that it may not injure the eye by reaching it.

Then for a second time dry the interior of the ear as thoroughly as possible with cotton tampons, and allow due time for complete evaporation of the alcoholic moisture which it may not have been possible to reach with the cotton and dress with a very slight quantity of thioform. This may be effectually and economically applied by means of the insufflator. The smaller the quantity used the better, so long as it is equally distributed.

If the case be one of unusual severity, and much irritation be manifest by shaking and scratching, I frequently relieve the suffering by thoroughly incorporating .25 of carefully powdered hydrochlorate of cocaine crystals, to each 25.0 of thioform used, and bind the ears loosely back over the top of the head with a net, at least until the urgent symptoms are relieved.

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and other agents with special respect to its merits in such conditions.

Iodoform in my hands has proven a most unsatisfactory agent to use in these cases, not only because of its odor, but more particularly from its positive chemotactic influence, probably due to its high percentage of iodine. Instead of checking, it directly increases the discharge and is diametrically opposed to the mercuric chloride in this important respect.

Thioform, which is manufactured by a clever combination of sulphur, salicylic acid and bismuth, is much more perfectly adapted to these cases than is either dermatol or aristol, from its being practically odorless and possessing more soothing qualities, but especially from its deeper penetrating activity as an antiseptic on tissues generally, and while it precipitates albumen, as do nearly all the agents used in these cases, its precipitation's crust or pellicle is freely permeable to fluids, thus rendering it more or less impossible for the normal and abnormal secretions to stagnate underneath, and defeat our efforts as is not at all uncommon in the other applications.

These properties along with being practically non-poisonous makes this agent highly satisfactory to use where we wish to bring about resolution in a surface filled with glands actively secreting.

I dress my cases but once daily and most thoroughly, and am pleased to say gain results, which under the "water" treatment I could never have hoped to attain.

I have intentionally omitted to discuss the many complications which not infrequently present themselves in connection with these cases, which under circumstances would take the condition outside of those diseases commonly known as simple skin diseases; otherwise my already somewhat lengthy article would have needed abbreviation at parts I consider vital to an understanding of these interesting cases.

Such complications would in themselves make subject matter for several interesting articles if handled in detail.

ACUTE INDIGESTION.

BY E. H. SHEPARD, V. S., CLEVELAND, O.

A Paper read before the Joint Session of the Ohio and Michigan V. M. Associations,
July 12th.

In coming before you to-day with a subject so common,—one that has given us all an opportunity for thought and experience, and one that with some of us at least is almost an every-day thought, till we become, as it were, insensible to either its causes, treatment or results. I feel that the subject is almost, perhaps, too insignificant to be worthy of the valuable time of this joint meeting,—passing away so quickly and pleasantly; still, these subjects which are a part of our every-day work, as it were, become *too* common. We settle after a little time into a common rut and unless the case afflicted is of more value than usual, we administer the usual dope and accept the results as inevitable, till our patrons often think us heedless, sometimes careless, about what is so much to them.

If you will patiently follow me a few moments—for I promise not to unnecessarily weary you—I will hastily offer a few thoughts on this acute trouble,—never too easy to subdue,—but, on the contrary, often keeping the practitioner, as well as the owner, on the anxious seat for many hours.

When I say "acute indigestion," I mean quick fermentation of the food in the horse's stomach, with all its customary complications, for it is seldom we see a case of pure indigestion of the stomach unaccompanied by bowel complications.

Acute indigestion should be applied to those cases originating in the stomach, and all treatment should be first to reach and quell the cause of the trouble; at the same time the already bad effects should be combated.

There is no doubt in my mind but what food grown in different districts, not cured properly, and fed in different ways and under different circumstances (often irrationally); water not pure, or allowed to be taken too cold, and in large quantities, are a few of the direct causes of this trouble, while, perhaps,

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the condition of the animal, his treatment before and especially after feeding, has much more to do with causing the disease.

Certain breeds of animals also seem to be more subject to the trouble, especially our heavy stock, used for heavy-draft purposes, consuming large quantities both of the solid and bulky foods, and required immediately to exert themselves before digestion has hardly begun.

Again, often the ability of the animal to thoroughly masticate his food is the only cause of those repeated slight attacks culminating later in a most severe one, because the functions of the stomach have been long interfered with and become weakened.

How often are we called into counsel about some animal that "has trouble with his water" every few nights, and I venture the opinion that in nine cases out of ten where colic pains are present they are caused by some form of indigestion, and the practitioner who can discern the cause of the little irregularities in the digestive system of the horse is the one better prepared to combat the serious and often fatal complications which arise, as it were, "in the twinkling of an eye."

It is my opinion that we often make a decided mistake in our diagnosis at the *beginning* of many cases of stomach and bowel troubles, and lose time thereby. The early symptoms of acute indigestion are often misleading, with scarcely no change in the pulse; no injection of the mucous membranes; no sweating or trembling; no eructations of gases; no particular change in respirations (only somewhat quickened); slight apparently abdominal pains, and a somewhat anxious expression of uneasiness, which might easily be mistaken for a slight colic attack, and without waiting, and more from the idea to do something and satisfy the owner, a good-sized opiate is administered to relieve pain (tinct. opii, morphia, ether, chloral, chloroform, etc.), with the perfectly natural result that we do not quell the symptoms of uneasiness because we do not reach the cause. But, on the contrary, we blunt the animal's keen sensibility, and gag, as it were, his only method of communication

with us. The delicate nerve filaments near the seat of trouble become somewhat benumbed, and no longer communicate the seriousness of the hidden volcano. The bowel tract is also soothed into quietness; a full peristaltic action, *now* above all other times *most needed* to carry away what flatus and food has escaped the stomach, becomes weak or entirely absent. The rapid accumulation of poisonous gases, unable to find exit, already are contaminating the mucous membrane's delicate network of miniature glands and vessels, thereby reaching and poisoning the blood. The heart responds to the unnatural stimulus, the pulse quickens, the visible mucous membranes become injected, the short and quickened respirations inform us of the unnatural size of the stomach pressing against the diaphragm and whose walls are stretched till their functions have become practically useless. Then we take in the full situation, but the injury done by the benumbing influence of one dose or two, perhaps three, of opiates is hard to overcome; time has been lost, and a case of acute indigestion with all its complications and results stares us in the face. His distress is increasing, regurgitation of gas—perhaps fluids, possibly solids—takes place, till he nearly strangles; sweats bedew the whole body; he trembles and shows his intense agony in every action. Medicine is often hard to administer, and fatal complications are liable to confront us at any moment.

The natural functions of the walls of the stomach have nearly, if not entirely, ceased. The pyloric and cardiac openings *may be* completely closed; if so then we hear no eructations. If, on the contrary, they allow the passage of some of the contents of the stomach—it may prove a safety valve, relieving the tension on the walls—but at the same time making the bowels a party to the trouble and the danger increases.

While I firmly believe that the animal's pain under these conditions is most acute, and that when continued for some time has undoubtedly its effect upon the nervous system, thereby increasing the danger of true inflammation, still the constant

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pain or its irregularity, as shown by the actions of the animal, is to us one of the many visible signs by which we may determine the progress of the disease, it being one of the natural results of internal disturbance, and in this particular lesion we *most* need the clear brain of the patient to guide us aright.

To my mind, any preparation of opium, even morphine hypodermically, is contra-indicated, for they tend to interfere with the normal secretions, and certainly constipate and paralyze, as it were, the whole bowel tract. The other opiates above mentioned all have their disadvantages in one way or another, and can only have one retrieving feature at the most—that of making the patient partially insensible to his condition, and at the same time putting us in the same condition regarding the progression of the disease. Not one reaches or has any effect upon the cause to any marked extent, however. The exact condition of the case in hand at the time we are permitted to assume control of it, the length of the attack with its supposed cause, the kind and quantity of medicine it has received, if any, must be thoroughly understood before we can form any consistent opinion as to further treatment.

In any of the earlier stages of the disease the main immediate danger is to prevent suffocation from pressure of gas and possible rupture of either the stomach, bowels or diaphragm, and by this relief we offer one of the best antidotes for the existing pain that can possibly be afforded, for with slight internal pressure an active fermentation may be in progress without the animal evincing but little pain.

The *modus operandi* of using the trocar and canula when necessary needs no comment, for all are familiar with the anti-septic precautions essential to attain successful results.

When used to evacuate the bowel I believe we should not wait too long, as its early use prevents the contaminating influence of the already imprisoned poisonous gases and relieves the strain on the muscular tissues of the part, allowing it a much needed rest, with at least a partial return to its normal condition and actions.

As to relieving the stomach of its accumulated gases by the use of trocar and canula or by tube through the œsophagus, I believe it easier said than done, for I have tried both, and consider the danger attending either operation sufficient to prevent their coming into general practice.

The first evacuation of the bowel of its quickly accumulated gas may be sufficient to allow it to regain its natural action; but, with the knowledge of a progressing cause back of it, and the general appearance of the case, as a rule, a mild hypodermic of eserine will better insure a safe result at that time.

I would not recommend the use of eserine while the walls of the intestines are under severe tension, because I believe the increased forced peristaltic action might easily rupture the muscular walls. But its *conservative* use, considering in this disease that the contents of the bowel are generally of a soft nature, I believe to be productive of good results and almost entirely free from any bad effects. It is quick and efficacious in its action, and has, if used properly, no bad after effects.

To control the fermentive action progressing in the stomach a variety of remedies have been used with varied success. Turpentine and camphor, with large doses of bland oils, are used by some and do fairly well, although the former have a marked tendency to irritate, and under the existing conditions assist in the tendency towards later gastritis, while the latter is so slow in its action and adds to an already overloaded stomach. Salicylic acid, boracic acid, sodium sulphite, or hyposulphite, and dilute carbolic acid, have marked antiseptic actions, and under certain conditions may be all that is needed. Chloride of lime and charcoal act chemically and mechanically, but their administration is often difficult. Sodium bicarbonate will add to the eructations of gas and often bring on regurgitation of the food. Carbonate of ammonia and other prompt stimulants assist, if combined with plenty of the antiferments.

But no one is sanguine enough to affirm that they have a specific, because all know that to be impossible, considering the great variety of causes, and the varying susceptibilities of the

animal. However, we all have some combination we have found to suit our cases the best, and that to-day is the only object of this paper. I hope to offer at least one preparation which is not generally used and I have not as yet seen it advocated. We should bear in mind that the conditions existing in acute indigestion are dependent upon a certain quantity, more or less, of sour, fermenting, decomposing food, and whatever may be done to alleviate its effects is only weakly palliative, and we must strike at the root of the evil, the cause, to prevent fatal effects, and at the same time use remedies which will preserve and encourage the normal secretions and stimulate the natural peristaltic motions of the digestive tract. While all other adjuncts that in any way assist—as external applications of stimulating liniments, injections of warm water per rectum, and protecting the animal from unnecessarily injuring itself, etc., should be conscientiously observed.

If the contents of the stomach are in a fermentative, yeasty, sour condition, and not sweet and mildly digesting, as it should, then some force has acted to diminish the essentials of digestion, and we must supply them, for the stomach and bowel tract will later take much easier care of digesting food than sour refuse forced through them by rough irritating cathartics, with all their attending dangers, and here I say and believe that cathartics are worse than useless, if a rational treatment is prescribed.

I grant that if any preparation of opium is used, yes, in fact, most any opiate, to relieve and make your patient quiet, that a purge will become a necessity, and your complications are liable to be many instead of few. Do not misunderstand me, and think me heartless because I oppose opiates in acute indigestion, for I believe the patient will suffer less in the end by discarding them, especially in the early and middle stages.

In selecting, as I have above mentioned, a digestive principle that I believe is wanting and needed in these cases, I have received with surprise and greatest satisfaction what to me has been startling results in some of the worst cases it has been my

fortune to meet by administering pepsin in solution in quantities of two and three drams at a dose.

In conjunction with moderate doses of carminatives—namely, ginger, peppermint, anise, and capsicum—using aconite according to the condition of the pulse, and in some cases, mild doses of sympathetic sedatives, either belladonna, hyoscyamus or cannabis indica, my experience has been that I have seen decided relief almost immediately, and, with one exception, in all cases not in the last stages, four doses have been the maximum number where all eructations have ceased, pain relieved and digestion apparently resumed. After a little I invariably prescribe (to be followed up for some hours) small doses of hyposulphite of sodium, with small doses of the milder carminatives and diffusible stimulants. The sodium seems to have a wholesome purifying action upon the blood and is one of the best preventives of toxic poisoning.

In acute indigestion there is generally an abundance of fluids thrown out into the digestive tract, and if opiates are avoided and the disease does not continue too long, so that the fluids are reabsorbed, it is seldom that laxatives or purgatives are needed. Demulcent drinks and gruels, with careful exercising, are generally all that is needed.

A SIMPLE AND RAPID METHOD OF DETECTING TUBERCLE BACILLI IN FLUIDS.

BY E. W. HAMMOND, STUDENT OF THE MCGILL VETERINARY COLLEGE,
MONTREAL.

Anyone who has attempted to detect tubercle bacilli in fluids knows how wearisome and uncertain are the ordinary methods. Numerous suggestions have been made with regard to the shortening of the process of detection; some authorities have employed caustic potash to dissolve out mucous and proteid materials, and have obtained fair results by decanting. Others again have employed the centrifugal machines and the hæmotocrit. In neither case do the results obtained appear to

be so certain and the process so satisfactory as that here given. Some authorities have used very complicated methods: I note in *Farming* for April 26th a description of a Russian method, in which the milk is first coagulated by dilute citric acid and the coagulum dissolved by phosphate of soda solution, then sulphuric ether and water are added, the mixture is shaken for fifteen minutes, the solution is allowed to stand, and after the fat is separated the remainder of the liquid is taken and dilute acetic acid is added until the first sign of coagulam appears. It is then transferred to the centrifugal machine giving 3600 revolutions per minute and the deposit is conveyed to two slides and examined with oil immersion.

However, as a result of a series of studies in which, at the suggestion of Dr. Adami, I tried various methods of separating the bacilli and gaining them from milk, I have eventually discarded one after another of the solvents of the various constituents of the milk, and have devised a method which appears to be at the same time accurate, rapid and cleanly. The method is briefly as follows:—

Taking milk to which, preferably in order to arrest the growth of other bacteria which are apt to hide the tubercle bacilli, 5 per cent. of glacial carbolic acid has been added, I take 30 c.c., 15 c.c. in two tubes, then centrifugalize it for 15 minutes (preferably in the hand centrifuge manufactured by Bausch & Lomb, Rochester, N. Y.), the supernating fluid is poured off; the precipitated débris, bacteria, etc., which contains the bacilli, is then treated while in the tube with about 3 c.c. of 5 per cent. caustic potash solution, is mixed up thoroughly by giving a good shake and is left for two or three minutes. The tube is then filled up to the 15 c.c. mark with distilled water and centrifugalized for about 20 minutes. If now the supernating fluid be taken off, the minute quantity of débris at the base of the tube can be examined right away, or if the material is required in a still purer condition completely free from caustic potash, a series of dilutions and centrifugalizations with distilled water can be carried on.

By this method a film can be made upon a slide or coverslip which is free from fat and proteid granules, and contains only the bacteria present, together with any solid débris which may be in the milk or other fluid. To get rid of this foreign matter, if present in any large amount, one may safely filter the fluid at the beginning of the process through the finest gauze. It is wholly unnecessary I find to treat milk with sulphuric ether in order to separate off fats, the caustic potash being useful to remove both fats and proteids from the deposit after the first centrifugalization in a way that is completely satisfactory.

I have employed this method and have been able to detect bacilli in the milk in which they were present in such small numbers that, by inoculating 15 to 33 c.c. of the same milk into a series of over 50 guinea-pigs and rabbits only in one animal (rabbit) was there a development of tuberculosis, and I will go so far as to say that this fact indicates that the method affords a more sure diagnosis of the presence of bacilli in milk than does inoculation. It may be added that from using this same milk I have concentrated down 70 c.c., using distilled water, and in weak caustic potash have inoculated the deposit into a rabbit which now after 14 days is showing definite emaciation and indications of the progress of tuberculosis.

It is scarcely necessary to add that this simple method can be most satisfactorily employed for the detection of tubercle bacilli in other animal fluids; it gives excellent results, for example, with sputum from suspected cases of tuberculosis, and although as yet I have had no undoubted example of tuberculous urine, I have found that it gives a very clear precipitate of bacteria in urines containing a large amount of mucous and pus.

THE SEVENTH INTERNATIONAL CONGRESS OF VETERINARY SURGEONS.

We have received from the Committee of Management the following circular of information and programme of the subjects

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for debate, with a request that the REVIEW will give it prominence. We have already made mention of this important event, but cheerfully subjoin the full text of Dr. Lydtin's circular letter, in the hope that as many American delegates as possible may attend. In the light of recent progress in the recognition of veterinarians by National, State and municipal governments in the capacity of sanitary attachés, the profession owes it to itself to have representatives at Baden-Baden in 1899. Surely the United States Bureau of Animal Industry will send one or more delegates, and the United States Veterinary Medical Association can ill afford to fail to have a member or two present.

The circular is as follows :

SEVENTH INTERNATIONAL CONGRESS OF VETERINARY SURGEONS AT BADEN-BADEN, 1899.

In accordance with the resolution of the Sixth International Congress of Veterinary Surgeons, held at Berne in 1895, the Seventh Congress will take place at Baden-Baden in the year 1899. The veterinary surgeons of Baden are entrusted with the carrying out of the arrangements. With the consent of an international meeting held at Stuttgart in June, 1896, they have formed the undersigned Committee of Management, which has resolved to hold the Congress in Baden-Baden in the first half of August, 1899.

The programme is as follows :

- a. Precautionary measures against the spread of epidemic diseases in consequence of international trade in animals ;
- b. The prevention of tuberculosis among domestic animals and the use of the flesh and milk of animals suffering from this disease, and, connected with this, the latest demands for an effectual meat inspection ;
- c. The prevention of foot-and-mouth disease ;
- d. The prevention of swine fever ;
- e. The forwarding of veterinary science, especially by the erection of institutions for experiments in diseases and by founding chairs of comparative medicine in colleges for veterinary surgeons ;
- f. Conclusion of the work of the drawing-up of a common nomenclature in veterinary medicine ;
- g. Official veterinarianism.

(This programme may be altered or supplemented if generally desired.)

In the proceedings, besides the German language, English and French will be permitted. Arrangements will be made for the immediate translation of all speeches and reports.

In consideration of the great expenses connected with the Congress, the fee for members is fixed at M12 = 12s. For ladies who wish to attend the Congress, ladies' tickets will be issued on application, price M6 = 6s.

Every member, even if unable personally to be present in Baden-Baden, will receive copies of all publications of the Congress, including the General Report. The sale price of this Report, which the members will receive free of charge, is fixed at M16.

Arrangements for rooms for members of the Congress will be made by a lodgings committee in Baden-Baden. We are already in a position to state that those who take part in the Congress will be able to find board and lodging from M6 per day. The town of Baden-Baden has undertaken by arrangement with the Baden-Committee to provide special entertainments and festivities for the members.

The Grand-ducal Government of Baden and the Chancellor of the Empire have generously made a considerable grant towards the expenses of the Congress.

Dr. Lydtin, Geheimer Oberregierungsath, Lichtenthalerstrasse 9, Baden-Baden, will be happy to give any further information which may be desired.

The Filiale der Rheinischen Creditbank in Baden-Baden will act as treasurer.

For information respecting lodgings, apply to the Orts ausausschuss des VII Internat. Thierärztl. Kongresses, Lichtenthalerstrasse 9, Baden-Baden.

The Committee of Management, in issuing invitations to the Congress, feels it may safely assure those who desire to take part in it that the time spent in Baden-Baden will not only be of the greatest professional importance, but will also offer the participants the pleasures and amusements of a first-class watering place.

Baden-Baden, 15th June, 1898.

In the name of the Committee of Management of the Seventh International Congress of Veterinary Surgeons.

The President,

DR. LYDTIN.

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REPORTS OF CASES.

"Careful observation makes a skillful practitioner, but his skill dies with him. By recording his observations, he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science."

NOTES FROM CLINICS OF MCKILLIP VETERINARY COLLEGE.

ARYTENOIDERAPHY.

Arytenoideraphy is a new surgical treatment for roaring due to laryngeal hemiplegia. The operation consists of suturing the arytenoid cartilage to the crico-thyroid ligament and excision of the thyro-arytenoid ligament (vocal cord).

From a physiological and surgical aspect, the operation is much more rational than arytenectomy, and, being less complicated, is not followed by the same serious sequelæ.

To date six patients have received the treatment, with results varying from marked improvement in two cases to complete recovery in four.

A detailed description will be submitted to the profession when more data is at hand.

THE PERIOD OF IMMUNITY IN TETANUS.

From the evidence of the following case it would seem the period of immunity in tetanus is very transient.

In March, 1897, a case of acute tetanus was presented at the clinics. Under the usual depresso-motor treatment, the disease gradually aborted in five weeks. Five and one-half months later the disease recurred, with all its acuteness, and resulted in death three weeks later.

In both instances the cause was a nail-prick in a hind foot.

Tetanus antitoxin has entirely been discarded in the treatment of tetanus. Its value as a preventive is indeed doubtful.

MANOREK'S ANTISTREPTOCOCCUS SERUM

has thus far failed to give positive results in the treatment of purpura hæmorrhagica.

RECORD OF A FEW CASES OF ABDOMINAL SURGERY.*

By E. MAYHEW MICHENER, V. M. D., North Wales, Pa.

Case No. 1.—Subject: Berkshire sow, reported by owner to have been in labor forty-eight hours, no delivery. On examina-

* Presented at the semi-annual meeting of the Pennsylvania State Veterinary Medical Association, Franklin, Pa., September, 1897.

tion found one pig presenting, anterior presentation; after considerable work managed to deliver this one pig. After waiting four hours for more and finding there was no progress and sow growing weaker decided upon Cæsarian section (gastro-hysterotomy.) Secured sow on left side and scrubbed right side thoroughly with soap and water, clipped the bristles closely over about a square foot of surface surrounding the line of incision, then washed with 10 per cent. solution of creolin. The surface was then wiped dry with clean towel. Incised skin about six inches from a point two inches in front of angle of ilium downward and forward, in line with fibres of the small oblique muscle of the abdomen, which was incised for nearly the same distance, not, however, quite as far anteriorly and downward as was the incision through the skin. The transverse fascia was then incised to like extent and the peritoneum lifted up by rat-tooth forceps and an opening made large enough to admit the finger, which was then used as a guide for the probe-pointed bistoury, which was used to enlarge the opening in the peritoneum enough to admit the hand.

The uterus containing the young was easily secured and the part of the horn containing the pig was brought out through the opening and found very near the divergence of the two horns. An incision was made at a point near as possible to the body of the uterus and the pig extracted by means of a strong tenaculum placed in the snout. Care was taken that the fluids escaping with the foetus did not touch the wound in the abdomen nor fall into the abdominal cavity. Two other pigs, which were found to be in the distant horn of the uterus, were removed through the same opening. All were dead, the placentæ were easily removed, and all fluids were pressed out. The wound in the uterus was washed with warm water containing creolin—1 part to 20,—and at once stitched up with interrupted suture of waxed linen thread.

Care was taken to invert the edges of the wound so that the peritoneal surface of the uterus came into close contact throughout the length of the incision. In placing the stitches the needle was carried through the peritoneal and muscular coats of the uterus but *not* through the mucous membrane coat. The stitches were placed half an inch apart. The uterus was returned and the wound in the abdominal wall closed by two rows of stitches, the first continuous suture of the peritoneum, the second consisted of two stout wires passed through the skin, one at the upper and the other at the lower third of the incision

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through the skin. Each wire was then wrapped figure-of-8 fashion with stout linen suture, this bringing the cut edges of the skin closely together. The space between and beyond the wires was sutured firmly with interrupted sutures, a small opening being left at lowest point of the wound for drainage. The wound was then wet with 50 per cent. creolin solution and animal released and turned into orchard. It was very much exhausted and somewhat lame behind on the side of the incision. The weather being very warm the animal was drenched frequently with water from pump, which she seemed to enjoy very much. Appetite very poor for first three days, then rapidly improved and in eight days apparently all right. In one month was rapidly gaining flesh.

Case No. 2.—Chester white sow. In labor two days, during which time four pigs were delivered by much assistance being given. Sow then seemed to be entirely undisturbed by labor pains for about ten hours, then began to labor feebly and without any results. Operation decided upon and method described in Case No. 1 followed. Nothing different from Case No. 1 except found considerable quantity of fluid in abdominal cavity, which poured out on incising the peritoneum. On exposure to air the liquid turned from transparent to almost white, resembling heated albumen and from very liquid to consistency of jelly.

In removing the pigs, which were four, I found it necessary to make incision into each horn of uterus. Wounds in uterus and abdominal walls closed as before described. Animal very much depressed and little appetite for nearly a week, then began to improve slowly and in three weeks was gaining flesh.

Case No. 3.—Fox terrier bitch. In labor fifteen hours, during which time four puppies—two alive and two dead—were born. The fifth pup I was unable to secure, it not coming back within reach. Secured animal, cleansed abdomen with soap and water, disinfected with creolin solution. Made incision on median line from just anterior the pelvis to near the umbilicus. The uterus was drawn through the wound and found to contain only one pup, which was well back into the body of the uterus. Incised the right horn and extracted the pup alive. Wound in uterus sutured and wound in abdomen closed by close interrupted sutures including both skin and recti muscles.

Animal slightly depressed after operation and temperature, which was before 102, rose, to 104½ in less than two hours, but fell to 101 four hours later. Bitch drank some milk and raw

eggs three hours after operation and next day appetite good. Pup alive and nursing, but was killed by accident when four days old.

This animal made a complete recovery, and showed throughout less disturbance than I have frequently witnessed following ovariectomy.

Case No. 4.—French poodle bitch. In labor three days, during which time three pups were delivered. Found animal very weak, temperature 105. Labor pains weak, succeeded by hard work in extracting one more pup badly decomposed. As no more were likely to be secured from appearances, informed owner that possibly might save bitch by operation as last resort. He consented, and I proceeded as in fox terrier and obtained eight more dead and partly decomposed young. Bitch very weak and threatened collapse after finishing operation; placed her in warm room and gave small repeated doses of brandy and milk; she seemed to gain slowly until about 48 hours after operation, then failed rapidly and died on the third day. Autopsy showed very slight peritonitis, but marked inflammation of the womb. The incisions in the womb had become fastened quite tightly together with lymph bands, making an almost perfect closure.

Case No. 5.—I wish to describe here an accident which occurred during an operation upon a ridgling boar. I have frequently performed this operation, almost always with success, on boars of ages varying from a few months to three years. The method used is, in short, to secure completely on an inclined plane, the head placed downward. Incision is made as in the operation described on the sow. The testicle, or sometimes both, has no certain location, varying from the lumbar region to the internal inguinal ring. Generally, however, it is found well down toward the internal ring.

The accident which I wish to describe consisted of a transverse tear in the small intestines, severing the gut quite one-half its circumference. It was caused by using too great force in attempting to return the intestines through the opening in the abdominal wall, through which they had been forced by the violent struggles of the animal. I informed the owner, who was present, that most likely the accident would prove fatal, but repaired the injury to the gut by turning the torn edges inward and suturing with silk thread and continuous suture, going only through the peritoneal coating of the bowel. Upon inquiry several weeks later, was not a little pleased and surprised to learn that the pig never showed the least inconveni-

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ence from the combined operations of removing the testicle from the abdomen, another from the scrotum and the suturing of the bowels.

HYDROPS AMNII IN THE COW.

By M. J. JONES, Veterinarian, Cuba, Ohio.

I feel I am, perhaps, intruding on your valuable space, but cannot refrain from describing a case in my practice, the treatment of which verifies the correctness of a conclusion arrived at by Prof. W. L. Williams, after describing a case of hydrops amnii in a cow treated by himself and inserted on page 180 of the June number of your highly appreciated periodical. He says: "The result in this case indicates that the proper method to pursue is to complete at once the dilatation of the os and evacuation of the uterine contents by physical force," etc. On Jan. 27th, 1898, I received a dispatch calling me to a dairy farm belonging to Mr. S., a banker, in a thrifty country town, situated some two miles away from the farm. On arriving was informed by the tenants that the animal that I was called to see had been dead possibly before the owner had sent the dispatch calling me, but that they wished me to treat another one of the herd that was at the other barn, also informing me they had had several abortions and one death in the last few days, out of a herd numbering perhaps thirty cows. On arriving at the barn found the patient, a six-year-old cow, probably weighing 1100 lbs., in a standing posture, nose protruding, abdomen fearfully distended, respiration very short; was told that she had been ailing for 48 hours. After careful examination by percussion and auscultation, diagnosed hydrops amnii, having been previously informed that she was in her seventh month of gestation. On examining her vagina, found the distended uterus partly forced into the vagina, very tense and hard, but could not find the os; tried by gentle pressure to force the distended mass forward, but failed; after considerable manipulation, succeeded in finding the os, situated several inches below the vagina and considerably to the right. I immediately proceeded to inflate the os by the usual method, which was accomplished without much difficulty, clear liquid flowing profusely; the os and vagina dilated by manipulation of both hands, the liquid continued to flow until apparently 20 or 30 gallons had been removed. At this juncture administered a stimulant, after which made diligent search for foetus, but immediately on entering the os was much surprised to find this thin band mentioned by

Prof. Williams centrally and perpendicularly located in close contact with the os. Having handled hundreds of cases of obstetrics, in the last thirty years, and never coming in contact with this abnormality, I was nonplussed, but, being encouraged by the remembrance of success in former cases of difficult parturition, I proceeded to explore for the foetus. Standing on a box with my arm inserted to the axilla, and straining every nerve, found it impossible to touch anything, excepting some membranes supposed to be the envelopes of a foetus, which were removed. After several attempts I abandoned the idea of removing the foetus at that time, it being after midnight and very disagreeable. Washed the uterus with a cooling astringent, drawing off nearly all the fluid with a catheter. Repeated the stimulant, after which was surprised to find the animal could walk quite well, having been told when I first arrived that she would fall if moved, and having to call two attendants to assist her in standing by holding a canvas under her, while I operated. Removed the patient to dry, comfortable quarters, leaving her for the night, hoping the uterus would contract on the foetus, when I could easily remove it; but on informing the attendant I would return in the morning, I was positively refused the privilege until he had consulted with the owner, saying he had not been authorized to have me operate on this animal, but the one that was dead, and that he would not take any more responsibility, but would see the owner early in the morning and would wire me if needed. Not hearing from the case for several days, and being very anxious, I inquired of a neighbor what became of the patient. Was told that the next morning there was the head of a foetus protruding at the vulva and that the attendant removed it without difficulty, the mother making a fine recovery without further treatment.

I have been thoroughly puzzled over this band in the uterus, being unable to find satisfactory explanation in my works on obstetrics or from my professional brethren, until I read Prof. Williams description of an autopsy, which no doubt explained the abnormality.

I feel that the knowledge acquired from this one article of the Professor's has amply repaid me for my years' subscription.

PARTURIENT APOPLEXY.

By M. J. JONES, Veterinarian, Cuba, Ohio.

Quite frequently noticing reports in the veterinary journals of treatment for parturient apoplexy and the many different

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remedies suggested by the writers, I am constrained to believe that there is by far too great a loss to the stock-owner from this disease, even in the hands of qualified veterinarians; and having cast my lot with these professional gentlemen, I wish to offer the treatment adopted by myself, being the treatment recommended by Prof. McIntosh. I have used this treatment exclusively in my practice for nearly two years, changing the same when in my judgment the case required it; not losing a single patient out of quite a number treated.

With your indulgence will describe one case.

On June 16, 1898, was called six miles from office, to remove placenta from a shorthorn cow, said to weigh nearly 1400 lbs., when in full flesh. I found her of mature age, and very plethoric, the owner being a high feeder. On examination I found the placenta attached in a great many places; removed it after considerable manipulation, using adeps freely, as I always do in such cases, with a view to arresting any absorption that might take place in the uterus or vagina; advised light diet and appropriate treatment, telling the owner that he had a splendid subject for parturient apoplexy, which statement he ridiculed, saying: "There never was an animal in more perfect health."

Was again called on the 18th inst., at 10 o'clock P. M., and found patient prostrate, the muscles of fore-limbs and neck very rigid, jaws clenched, eyes sunken in socket until they were nearly imperceptible, caused by the opisthotonos, which was very marked; placed animal on sternum and she propelled herself forward with head raised high, until she came to a post-and-rail fence, which was leaning at an angle of 45° from her. She placed her head on next to the top rail and sat on her haunches, in which position she persisted in remaining for nearly two hours. Diagnosed parturient apoplexy.

Commenced treatment by giving nitrous ether, § ii ; spirits ammonia aromat., § i ; aquae, Oss. Repeated at short intervals; found great difficulty in administering, as deglutition was very imperfect. Continued treatment until 3 o'clock A. M., giving 30 ounces of the mixture by that time, after which the patient rallied, got on her feet and walked to the stable, falling over the sill inside; all this time seeming to be perfectly blind, having to be guided by the attendant. She almost immediately got on her feet, stood there persistently with head hanging down and chewing continuously as if ruminating, but not regurgitating. After a short interval, urinated profusely and in a

few minutes had a free evacuation of bowels. Continued medicine in same doses at longer intervals, until 40 ounces had been given. Patient improving after each dose, but every time she attempted to move the anterior limbs gave way, the patient falling, with muscles of the neck tightly drawn, bringing the head backward to near the shoulders; patient soon assumed a standing posture. At 8 o'clock A. M. left her standing, without any medicine, not returning until 5 o'clock P. M. During this interval she had no medicine and was frequently falling down and getting up. On my arrival found patient much worse, eyes set in head, jaws clenched, deglutition nearly suspended. Continued same medicine in same doses, but it was almost impossible to administer. On lifting head above a level, she would fall and go into paroxysms, but shortly regaining her feet. Continued medicine, spilling nearly half of it, but noting improvement after each dose. After 48 ounces in all had been given, left her for the night much improved. Called in morning, patient still improving; able to chew two or three nubbins of corn and drink a little water. Flow of milk fair, bowels normal, urine evacuated freely, locomotion much improved, gave fluid extract of *nux vomica* in twenty-minim doses, every four hours, to tone up digestive organs. Patient convalesced finely and made a perfect recovery with no lesions, except slight paralysis.

PEROXIDE IN THE TREATMENT OF BURNT WOUNDS.

By FRANCIS ABELE, Quincy, Mass.

During our terrible snow storm of last February was asked to attend a horse that had had a live trolley wire fall on it. As when fresh from college, the thought came, "What shall I do?" I could not do as my student used to do, read it up before starting, for I had no literature on the subject. I decided to see him and treat from symptoms.

Found patient in a stable, eating heartily. When led out, he was bright and alert, but very much like a bashful girl, did not want to be handled.

The full length of one side was a brand where the wire had burned through the skin and part of the flesh. The same was true of the inside of one hind leg in several large lines. On the point of one shoulder was a raised mass, the skin of which seemed dry and toughened like the sit-fast of an old saddle sore. I applied and left linseed oil, sodium bicarbonate and laudanum. The next day he was led home and the same with boracic acid

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used. The skin soon loosened, suppurating under the scar, separating huge patches of skin and baked muscle. Kept sprayed with Oakland peroxide followed by iodoform mixture. Wounds healed and horse was at work in about five weeks.

Practically I had merely burns to treat. The shoulder scar was where he rested on the rail. Witnesses said that when his feet touched the rail, great sheets of flame shot from his shoes. He would shriek with pain and fall, stagger to his feet and repeat the performance. Why he lived when there were two dead ones, killed by the same wire not a hundred yards away, I never could tell.

You will appreciate, then, as I do why there is no literature on the subject. It would come under burns.

I would here say that I believe the peroxide was the medicine that made the successful treatment. I have known of horses continuing for months with "burn" sores, that I believe peroxide would clean up.

A CONTRIBUTION TO THE PATHOLOGY OF VOMITION.

By THOS. B. ROGERS, D. V. S., Woodbury, N. J.

Perhaps a case of mine may help some one else, so I report it.

Brown mare, had suffered with colicky symptoms for some hours. Temperature normal, pulse fast and full, absolute absence of intestinal murmurs, pupils contracted, pain not severe, but constant. Treatment, eserine, aloes and venesection. Later the patient vomited very freely, the œsophagus becoming dilated until it looked as big as one's arm—the vomit running freely from both nostrils. Post-mortem showed the stomach to be intact and healthy, the cause of death being torsion of the small intestine about a yard from the pylorus.

I report this case because I think it goes to show that vomiting points to the lesion being well forward, but not necessarily to a gastric lesion.

EFFERVESCING URINE FROM A COW.

By FRANCIS ABELE, Quincy, Mass.

Was called to a cow, Jersey, dehorned, about 7 years old, due at an uncertain time in the near future to calve. Owner thought her laboring to calve. She had just three days previous been floated in a boat some three or four miles, from an island at the outer extremity of Boston harbor. The weather was quite fair and the water smooth on the trip.

Found the cow down, delirious, urine retained, fæces extremely hard, cow very fat. Cow did not respond to treatment and died. I have not told you that upon drawing her urine, it effervesced like soda water or lager beer. As the self commissioned superintendents expressed it, her water had a great "head" on it.

Post-mortem showed pneumonia, calf (heifer) full grown and properly presented; bladder empty, rectum inflamed. I should have said that fæces were hard as rocks and coated with bloody mucous, not blood. Physic and enemas failed to act. Had to use stomach pump to give physic, as too weak to swallow.

All that bothers me is, why did that urine effervesce? Has any one else ever seen the same? Can any reader account for it?

EXTRACTS FROM EXCHANGES.

ENGLISH REVIEW.

INTUSSUSCEPTION IN A MARE [By Mr. W. Lewis, M. R. C. V. S.].—This animal was taken ill one evening and during the night showed acute abdominal pain. Temporarily relieved by treatment, she had again violent colics, alternated with intermittent diminution in the symptoms—the temperature raised at one moment to drop down shortly after; there was constipation; the extremities gradually became cool; the countenance very anxious, and towards the last of her sickness she was attacked with sudden intense pain, accompanied by violent straining, and rapidly becoming delirious, dropped dead. At the post-mortem a splendid specimen of intussusception was found, a piece of the ilium about 20 inches in length had passed through the ilio-cæcal valve into the cæcum, the telescoped portion being quite black from strangulation.—(*Vet. Record.*)

PERFORATION OF THE INTESTINES BY *STRONGYLUS TRACANTHUS*.—A mare that had been suffering with colic was found by the author in a dying condition. Death took place a few hours after. The lesions at the post mortem were unusual: "On opening the abdominal cavity, two or three quarts of slightly blood-tinged fluid mixed with ingesta escaped, and the whole surfaces of the intestines and mesenteries were seen to be flaked over here and there with the same substances. The whole of the intestines were carefully removed and externally were perfectly normal in appearance with the exception of the

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terminal two feet of the ilium, which were very much inflamed and of light claret color, covered with black spots and perforated in eight or nine places, the holes varying in size from a large pin's head to a sixpenny piece. The mucous membrane of the cæcum and colon was covered with a great number of strongylus tetracanthus, and thousands more were lying deeply imbedded in its substance, and there were a few lying free on the surface of the bowel's contents. The ilium was empty, but there were numerous strongyli present. In the wall of the anterior mesentery were found several well developed specimens of the strongylus armatus.—(*Vet. Record.*)

PARALYSIS OF THE RADIAL NERVE.—This subject has called the attention of veterinarians in England in relation to its etiology, a case of dropped elbow having been related which was attributed to a fracture of the first rib. Several cases have been published on the subject and among the principal is an article from Mr. E. W. Hoare, F. R. C. V. S., where he relates several cases, some where fracture of the first rib existed and others where it was absent. Very properly Mr. Hoare concludes that after consideration of a series of cases one is justified in asking whether the condition of "dropped elbow" always depends on a constant lesion, and to accept the idea that cases presenting the symptoms of "dropped elbow" may depend on fractures of the first rib or on paralysis of the radial nerve from some unknown cause or on some lesion of the biceps extensor brachii muscles. Some cases will recover readily and completely, others, on the contrary, will linger and render the horse entirely useless. These last are frequently due to a costal injury.—(*Vet. Record.*)

RUPTURE OF THE CÆCUM [*By Mr. W. A. L. Robertson*].—This old mare (12 years) had for the past eight years been subject to colicky pains which were attributed to indigestion, due probably to bots. Her teeth were attended to—she received treatment to relieve her from the bots, but after a temporary improvement was again taken ill. She had dull pains; sat on her haunches, groaning and straining severely; rectal examination revealed a large rounded doughy mass, supposed to be an impacted colon. She died. Post-mortem showed at once evidences that intestinal rupture had taken place, which was traced to the arch of the cæcum, below which and to the right side was seen what at first sight appeared to be a large impacted portion of the first division of the great colon, but upon removal proved to be a large dilatation in the arch of the cæcum,

stretching to the abdominal floor, measuring about 18 inches by 12 by 9, full of dry ingesta, resembling in character that found in the omasum of the ruminant. At the superior border of this was found the rupture, about six inches in length. There were some 20 or 30 pounds of food in the sac, a weight which was the immediate cause of the rupture.—(*Vet. Record.*)

SCIRRHUS CORD AND IODIDE OF POTASSIUM [*By Mr. J. Walker, M. R. C. V. S.*].—An eight-year-old cart horse after castration with actual cautery had become affected with scirrhous cord of the near side. The cord was about the size of an average man's thigh, with a fistulous wound. The animal appearing in too weak condition to stand a surgical operation, iodide of potassium was resorted to and begun on April 25th. A bolus containing one and a half drachms of the iodide was given morning and evening, and the wound was also injected with a solution of biniodide of mercury and potass. iodide. Improvement was noticeable on the third day. Recovery was complete on the 14th of May; wound healed; complete disappearance of the cord; most remarkable improvement in condition and spirits, as lively as a two-year-old.—(*Vet. Record.*)

RUPTURE OF THE ŒSOPHAGUS [*By Mr. T. Charles Howatson*].—This case is that of an old cob which was supposed by his owner to have glanders because he had a peculiar discharge from the nose. The author saw the patient and found that instead of suffering with glanders he presented the symptoms of affection of the Œsophagus with possibly rupture, the lower part of the organ, near its entrance to the thorax being the seat of a soft swelling, with emphysema extending up the jugular groove. Notwithstanding treatment of fomentations applied on the œdema to try to subdue it, the swelling kept on increasing in all directions, extending over the whole body toward the last days of life. At that time, the pulse had risen to 80 per minute, the temperature was 106° and the breath very offensive. On the post-mortem it was found that the Œsophagus was highly inflamed and ruptured longitudinally on each side (each rupture measured 1 ½ inches at the seat of the swelling). It is unfortunate that notwithstanding careful researches, no traumatic cause of the ruptures could be found.—(*Vet. Journal.*)

VOMITION AND MESENTERIC EMBOLISM [*By Mr. J. Cormachie, M. R. C. V. S.*].—The clinical history of this three-year-old filly is brief. She was a moderate feeder, had somewhat capricious appetite, and at last is taken with abdominal symptoms and vomiting of a dirty, straw-colored, ill-smelling fluid, with

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particles of hay, etc., floating in it. This vomiting ceased entirely an hour or two before death. The post-mortem is described as follows by the author: "Naturally we went straight to the stomach, expecting to find the chief lesions there, and I must confess we were a little amazed to find next to nothing wrong. It was, of course, very much distended and full of fluid, but, with the exception of the epithelium covering the mucous membrane being very much macerated and peeling off, there was nothing else to be seen to account for the stomach symptoms. This being so negative, we decided to look elsewhere for the principal cause of death, and we were rewarded by finding the pancreas, intestines and mesenteries presenting an appearance unlike anything either of us had ever seen before. The former was quite green and looked like just becoming gangrenous, while the intestines were very red and congested looking. The most noticeable feature was the beautifully mapped-out condition of the whole mesenteric venous system. Every vein, large or small, and every capillary was distended to its utmost with blood, showing up a bluish-green or black color. The mesentery had quite lost its transparent, delicate appearance and become very thick and heavy, due, doubtless, to an exudation of serum from the distended veins and also from the lymphatics, for they, too, seemed to be in a similar congested condition. . . . After a long and careful search we found an *ante-mortem* clot in the anterior mesenteric vein. That part of the vein occluded by the clot had a constricted appearance and its walls were considerably thickened, while the part beyond was greatly dilated. All the veins which unite to form the anterior mesenteric were enormously distended and could be easily traced to their source in the large and small intestines. There was no doubt as to the *ante-mortem* nature of the clot—it was pale in color, and, although friable, still adhered to the tunica intima. It seemed to cause complete stasis of the venous circulation."—(*Vet. Journal*.)

ITALIAN REVIEW.

ABSTRACTS FROM THE RECORDS OF THE CLINIC OF THE MILAN SCHOOL.

BY PROF. LANZILLOTTI-BUONSANTI.

PARASITIC (?) FIBROMA, WITH CALCAREOUS WALLS, ON THE EXTERNAL FACE OF THE FLEXORS OF THE PHALANGES OF THE RIGHT HIND LEG.—A horse, nine years old, has had

for two months on the external face of the right hind metatarsal a swelling, which is gradually enlarging, notwithstanding repeated local irritating frictions. The tumor is as big as a large nut, painless, fibrous in consistency; its base is wide and spread on the lower third of the deep flexor of the phalanges. There is but little lameness. Supposing it a parasitic fibroma, extirpation was recommended. The animal cast, an Esmarch bandage was applied, and careful dissection with complete removal of the growth was made, the wound was curetted afterwards, a drain tube applied and the skin sewn with sutures. A continuous warm irrigation was applied, and in two weeks cicatrization was complete. Examination with the microscope failed to reveal the presence of parasites.—(*Clinica Veterinaria*.)

SIDEBONES OF THE RIGHT FOREFOOT.—NEUROMA AFTER NEUROTOMY.—A twelve-year-old having become lame by a sidebone on the external side of the right fore foot, was neurotized and relieved of his lameness. Three years after, the owner noticed a swelling on the inside of the same foot, which proved to be a similar ailment (ossification of the internal cartilage). Besides this new condition, on examination of the cicatrix of the first operation, a swelling was discovered, not very large in size, fusiform in shape, intimately adherent to the skin and giving rise to much pain when pressed upon. There was considerable lameness. As both lesions might be the cause of the disturbance of locomotion, it was decided to perform neurotomy on both sides of the leg. The operation of the inside was simple and that of the external side made so as to allow the entire removal of the neuroma which had formed at the ends of the divided nerve three years before. The wounds, after receiving a drain tube, were kept under continued irrigation of cold sterilized water and went on rapidly towards cicatrization, which occurred in a very short time. The new formation consisted of fibrous connective tissue, without nervous fibres. Out of many hundreds of cases of plantar neurotomy performed by the author, this is the second case only where such complication of neurotomy has been observed.—(*Clinica Veterinaria*.)

THICK CICATRIX OF THE FACE WITH HYPEROSTITIS OF THE NASAL BONE.—A four-year-old colt was disfigured by a thick cicatrix over the nasal region, following a contused wound that he had received on that part of the face. The horse presented a swelling, measuring four centimeters in dimension, extending upwards and laterally; it was hard, painless and adherent to the external surface of the nasal bone. The owner

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desired to have it removed and to have whatever was necessary done to have the ugly appearance of his horse relieved. An incision was made on the median line, the skin separated, and the subcutaneous tissue exposed. The entire swelling, which consisted of fibrous connective tissue, adherent to the nasal bone, was removed, the calcareous deposits on the surface of the bone were ruginated, the edges of the skin brought together with sutures, and the wound treated with irrigation of cold sterilized water. Cicatrization by first intention took place and left no blemish.—(*Clinica Veterinaria*.)

SEBACEOUS CYSTS OF THE FALSE NOSTRILS.—This unusual case presents a double interest; first, because of the presence of the cyst in both nostrils at once, which is rather uncommon, and, second, on account of the treatment resorted to by the author, who instead of using the ordinary operation of puncture of the cyst, removal of its contents, etc., preferred the more delicate operation of extirpation of the two sacs by one single process. The animal being cast, and the lower part of the face shaved and thoroughly disinfected, an incision was made on the median line parallel to the long axis of the cysts. The skin was then carefully dissected on both sides until first the cyst of the right side was reached and exposed. Unfortunately when the dissection from the inner skin of the nostril was about being carried out, a sudden movement of the head of the animal made the bistoury plunge into the cyst, which was emptied of its contents; the enveloping membrane of the cyst was then removed. The left cyst was successfully exposed and isolated. The wound was disinfected, drain tubes placed in, the skin closed with sutures, and a dressing of iodoformed collodion applied. In eight days the drain tubes were removed, and two days later the horse discharged cured. The contents of the cysts were of the same nature as that of cysts found in that region.—(*Clinica Veterinaria*.)

VENTRAL HERNIA OF THE RIGHT HYPOCHONDRIAC REGION.—A mare of irritable disposition became cast one night in her stall, and was found in the morning with one hind leg over the stall partition; she had struggled much to relieve herself and when she was relieved presented an enormous swelling on the right side of the abdomen. This was treated for a week with cold applications and clay mixture, but had only reduced a little. When the mare was shown to the author, the swelling was yet quite large and cedematous. Located on the right side, behind the last rib, it showed in one part a depression which

permitted him to detect through the skin the presence of an opening, the diameter of which could not be well made out on account of the irritability of the mare. Unable to relieve the œdema by massage, it was decided to resort to irrigations. These were applied for several days and when the œdema had subsided there remained but a little tumor, about the size of an orange, at the centre of which a small opening of the muscular walls of the abdomen could be detected. The principal part of the tumor could not be formed by the protruding intestines, but by the skin and the subcutaneous tissue underneath. On account of the condition of the lesion, radical interference was not considered justifiable and treatment by nitric acid was resorted to. Two applications of this caustic were made a few days apart. These were followed by a swelling which gradually subsided. A cutaneous slough took place two weeks after and the wound resulting from it treated with dermol ointment of ten per cent. Recovery was completed in six weeks' time. —(*Clinica Veterinaria*.)

THE VALUE OF TUBERCULIN.

DETAILS OF EXPERIMENTS UPON A NEW HAMPSHIRE HERD BY
THE STATE CATTLE COMMISSIONERS.

The following report has just been issued by the New Hampshire Board of Cattle Commissioners, and published throughout the New England agricultural press :

CONCORD, June 25, 1898.

The attention of the Cattle Commissioners was called June 12, 1897, to a herd of thoroughbred Holstein cattle owned by Mr. F. B. Shedd, of Northfield, an extensive land owner, cultivating and improving one of the finest farms in New Hampshire. The tuberculin test had been applied by a veterinarian, employed by Mr. Shedd, to 21 cattle, 12 of which failed to pass and in which the temperature reaction was very high. Two of the twelve were advanced cases of tuberculosis and had been destroyed before the arrival of the Commissioners. The ten animals remaining, to which our attention was called, consisted of nine thoroughbred Holstein cows and a thoroughbred Holstein bull, the latter weighing over 2000 pounds, all of which were under four years old. We found the nine cows isolated from all other cattle and so much excitement prevailed that the enclosure in which they were kept was a source of serious alarm to many of

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the neighboring people. The bull had been assigned the entire barn and the general appearance of all the cattle was vigorous and healthy.

We stated to Mr. Shedd that it was not our practice to destroy animals simply upon the result of the tuberculin test without other evidence of disease. To this position strong exception was taken by the owner of the cattle, who expressed a very decided opinion that the cattle should be destroyed. After a lengthy discussion of the matter, Mr. Shedd offered to contribute the ten reacting animals free of cost for the purpose of an experiment to determine, as far as possible, the proper course to take with cattle in a similar condition. This generous proposition was accepted by the Commissioners, with the understanding that at the end of one year a report of results should be made to the public and, if advisable at that time, the remaining animals in the experiment should be killed and examined. Some idea of the generosity of the gentleman in contributing the cattle can be obtained from the fact that these ten animals were easily worth \$1000 if sound, and, according to the law of appraisal for condemned animals, would have cost the State \$500 if destroyed. The ten animals were taken to Andover June 25, and the year having expired we make a report in accordance with the agreement.

The nine cows were placed upon an isolated farm where they were given such sanitary treatment for the promotion of health as any dairy cattle should have. This includes good ventilation, light, exercise, and moderate feed. These animals were kept in the open air both day and night, except in stormy weather, and for six months the milk of the entire herd was thrown away or fed to pigs. When these cattle were brought to the town some objections were raised on account of endangering other herds, so intense was the fear of tuberculosis, but there being no objection on the part of the adjoining land owners, there was little attention given to this unnecessary scare. The bull, owing to his size and strength, was kept in another section of the town where he could be properly handled. These animals were tested with tuberculin by a disinterested veterinarian September 12, December 9, February 23, and those not previously killed, May 9. Five of the ten animals passed the test successfully September 12, and five, including the bull, failed to pass. Owing to the inconvenience and expense of keeping the bull, and the supposition on the part of a few people that he was badly diseased, he was killed soon after the test

in September, although there was no previous indication of disease from a careful physical examination. He was killed for the purpose of experiment and carefully examined by a veterinarian in the presence of many people, but the examination failed to reveal any more evidence of disease than can be found in a large percentage of the cattle in the country to-day. It was so infinitesimal as to require no consideration upon any health basis and was strong proof of the extravagance in destroying animals by the test alone.

Only three of the nine remaining animals failed to pass the test applied December 9, and in one of the three the disease had developed sufficiently to be detected by physical examination, and was condemned. These three were isolated from the balance of the herd and their milk thrown away. They were again tested February 23 with no material change in the result, and were taken to Concord March 29 and destroyed and examined in the presence of many witnesses. The one condemned by physical examination was found to be a well-developed case of tuberculosis and should be destroyed. Although the other two, killed at the same time, had failed to pass the test, there was no physical evidence of disease and they were destroyed for the purpose of ascertaining their condition and for the information sought in the experiment. After a very thorough post-mortem examination by a veterinarian, slight evidence of disease was finally found, but it was even less than that found in the bull and was in such condition as to lead to the conclusion that it had not only been arrested but was on the way to ultimate recovery. How much this result was due to the treatment of the animals and how much to the alleged curative qualities of tuberculin is a matter of conjecture only. There are no developments of science in regard to the nature and characteristics of bovine tuberculosis that warrant the destruction of such animals.

The remaining six animals were tested with tuberculin February 23 and May 9 and all passed the test each time. Their condition from a physical examination has the appearance of perfect health. Since December 15 they have been in possession of a farmer who has fed and cared for them for their income, thus incurring no expense to the State. To all appearances and from any form of examination they are as healthy and vigorous as any cattle in the State.

The year for which the experiment was undertaken having about expired, the following correspondence recently passed

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between the commissioners and Mr. Shedd, the contributor of the cattle, which will be of general interest :

The report then gives the correspondence between the Commissioners and Mr. Shedd, the spirit of which is as indicated in the text of the document as above.

The cattle were returned to Mr. Shedd, June 24th, and the experiment closed. This special report is made public at this time in order that every owner of cattle in New Hampshire may have the earliest possible information in regard to the result of this experiment, the minute details of which have been carefully noted and recorded and will be found in the biennial report to be issued at the close of the year.

When the matter of dealing with contagious diseases of animals was placed by the legislature under the direction of the executive officer of the State Board of Health, the State Board of Agriculture, and the State Grange, it met with a vigorous protest on the part of those officers without avail. Finding the execution of the law thrust upon us, we have endeavored to enforce its provisions with due regard to the interest of the State in the matter of public health, which should be the ultimate result of all action legitimately taken.

The policy outlined at the outset, and resolutely followed to the present time has been sustained by the result of this experiment and is being adopted in the States around us where a more radical policy has previously prevailed. In the State of Massachusetts, where more than \$750,000 have been spent during the past four years and where every animal reacting to the tuberculin test was destroyed, the whole matter has been abandoned. In Connecticut, where the same extravagant policy prevailed, the authorities are now working upon practically the same line as in New Hampshire. Other adjoining States are falling into the same line. This means the destroying of tuberculous animals, detected by a physical examination, and the advocacy of sanitary measures for the prevention of the disease. We have faith in tuberculin as a diagnostic agent and depend upon it for certain purposes, but not as authority for destroying animals. It is a fact worthy of note that during all the unreasonable scare and extravagance around us in regard to this matter, the Cattle Commissioners of New Hampshire have attended to every legitimate call for action, made an inspection of every herd where symptoms of tuberculosis were reported, destroyed every tuberculous animal detected from a physical examination,

advised in regard to changes necessary for prevention of further development of disease in every instance,—and yet have expended but about one-half the money appropriated and available for this purpose. The balance is in the State treasury and the cattle it would have paid for are alive and causing danger to no one.

We believe action to the extent taken in New Hampshire is advisable for the protection of public health. We have abundant evidence that there has been a remarkable reduction in the bovine tuberculosis existing in New Hampshire under the action taken and believe it to be reduced to about the minimum point consistent with expense. It can never be eradicated, but should be held in check at the lowest possible ebb largely by the sanitary conditions provided by stock owners. We consider the herds of the State exceedingly free from disease and they can be kept so if the necessary precautions are observed. Educational work in securing these conditions is as essential as the killing and burying of diseased animals. A reasonable expenditure in both directions will be found advisable.

IRVING A. WATSON, *President.*

N. J. BACHELDER, *Secretary.*

Board of Cattle Commissioners.

BRIBE-TAKING BY VETERINARY SURGEONS.

PURIFICATION OF THE PROFESSION FROM SUCH PRACTICES
ESSENTIAL TO CONTINUED PROGRESS.

NEW YORK, July 20, 1898.

Editors American Veterinary Review:

GENTLEMEN:—I note in the July number of the REVIEW, an article entitled "Bribe-Taking by Veterinary Surgeons"; and, while I agree with the REVIEW that it does not exist to the extent pictured by your correspondent's informant, in his public onslaught made upon veterinarians in general in New York City, yet I feel certain that there were grounds for at least some part of his statements, as I do not think they would have been made entirely unprovoked. And, while it is extremely harrowing and humiliating, as well as disgusting, to read such statements, and to know that they have been publicly proclaimed against a profession that has been struggling on this continent for the past quarter of a century for supremacy in everything that is elevating and ennobling, pioneered by one of the noblest of its members, whose one great aim in life has been

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its advancement and elevation, at least to the level of our sister profession, and above all defiling influences, and who is to-day (while indulging in a well-earned rest in his native home) congratulating the profession on what it has accomplished, yet it is equally refreshing to note the noble sentiments embodied in the honest appeal to the REVIEW editors for the truth (which he trusts will be a refutation of the charges) and to know that this appeal,—expressing his fine sense of honor and regard for Alma Mater's teachings,—emanates from a member of the profession so charged. That appeal alone is a denial of the *general* application of the charge; and while there are such men in our ranks (and I am satisfied there are many such) we cannot, as a profession, fall into such degradation as was pictured to this young veterinarian. Let him continue to hold to his noble sentiments and he will find he has the loyal support of the *professional* element of the veterinary profession.

Your correspondent states that he thinks such men should be "kicked out of every organization with which they have the effrontery to associate themselves." I quite agree with him, as such men can in no way benefit an organization, as their sentiments cannot be other than deleterious to their associates; but at the same time, I am of the opinion that once it was known to the members of an organization that a fellow member was of such a character (and it certainly would have to be known before there would be grounds to eject him) his expulsion would not have much weight with him, as he would have no further use for the organization anyway. I feel certain, however, that there are extremely few men engaged in the practice of veterinary medicine, as a *profession*, in this metropolis, who stoop so low as your correspondent's informant says as to put fixed prices on their honor, and barter it for gold. For what more or less is a man doing than bartering his honor and his soul for gold when he passes a horse for *sound*, knowing that he is *unsound*, for a consideration, or refuses to pass a *sound* horse as such, unless the dealer pays his "scheduled demand," when he has been employed by a client to render an honest opinion to him on said horse.

It seems to me that the Lexow Committee two or three years ago clearly demonstrated that "bribe-taking" and "extortion" were and are "misdemeanors, punishable by fine or imprisonment," and if the dealers would protect themselves from these aptly termed "sharks," or extortionists, by an appeal to the legal authorities, instead of complying with their

demands, and then making a public clamor against the veterinary profession at large, the dealer's claims would be satisfied, the extortionists get their just deserts, and the *profession* continue to enjoy the confidence and respect which it justly deserves.

Yours respectfully,

ROBERT W. ELLIS, D. V. S.

THE MODERN HIGHWAYMAN.

The gentlemanly highwaymen of olden times relieved their victims of the spare cash which they happened to have about them without taking the trouble to present a bill in vindication of their right to do so, and their despoiled customers were glad enough to get off with the loss of their cash and jewels, without having their ears slit for making remonstrance. But those urbane gentlemen of the road ran a greater risk of their necks than do the bandits of modern society who go about enveloped in a mantle of security thrown around them by their victims who employ them. Gentle reader, raise the mask, and do you not recognize in the swell coachman the Dick Turpin of the age in which we live. True, he does not demand his master's purse; it just comes to him as slick as though it traveled over a greased runway to get there, and the coachman looks upon the transfer as a right to which his position entitles him. If the society man, ambitious to have a swell stable of stylish horses, cobs and trotters, would, as the boys say, tumble to the systematic and autocratic pilfering which is constantly going on to deplete his purse, ruin his property, and rob him at every turn, and would employ reputable horsemen and liverymen to supervise his stable affairs, he would save his money and find greater enjoyment and accommodation for his outlay. The *New York Telegraph* very truthfully tells the story, and we commend it to the stable owner of society:

"The coachman's bills represent many a dollar never earned; he divides with the tradesmen; unscrupulous veterinary surgeons are parties to the general game for swindling the rich. The fact that there is an organized system of robbery in this city of the majority of its wealthy and fashionable members is not generally known, and the idea would hardly be credited by the intelligent citizen, nor would even the victim of the powerful clique himself believe it possible that he was being held up in such a matter-of-fact and successful manner at

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first glance. The facts are in evidence, however, and there can be no getting around them. The cheerful victim of this little bunco game is the society man, who feels that he must have his pair of stylish horses, his cob, or his trotter to appear before the public in the proper way. Some there are who go in for big stables, having a new turnout for each entertainment or day in the week. These must pay heavily, indeed, for their little diversion, as the larger the purse the greater amount demanded by the bandits of Manhattan.

"The bandits are none other than 'Jeems' and 'Enry,' the swell coachmen who are in the main smart English horsemen, and who flourish and wax fat on their clever scheme. The coachman is the principal thief, the head of the order of banditti, but he has numerous aids and abettors. The smith who has charge of shoeing, plating and other work of the kind, is one of his trusty allies; often an unscrupulous veterinarian has a hand in the pie, and altogether the man who finds it impossible to get along in this world without his carriage and pair is fleeced right and left until the wonder is that he will stand it.

"Plainly told, the coachman has entire and absolute charge of the horses in almost every stable in this city, and he is permitted to act as he sees fit in the management of the turnout, which means that he has the power to buy horses, have them shod, clipped, fed, and attended to in every way necessary by whoever gives him the largest commission for the privilege of rendering the bills. This is the system, and if any one believes that the cheerful bandit who has all this power is playing any favorites or overlooking any bets, all he has to do is to get a glimpse at some of the bills that are turned in from the veterinarian, the smith, the feed-man, etc. Some of these are most astounding from a practical point of view, and would naturally indicate that they are never even looked at by the owner who pays them.

"There are many tricks of the trade, and they are all worked at some time or other on the unsuspecting society man, who, despite a most stupendous bluff, rarely knows a horse's hock from his withers.

"When things go a little slow for 'Jeems,' 'milady' finds it impossible to get her carriage some fine morning, because the horses are lame. This is deplorable, but what are you going to do about it? Simply hire a cab instead. The horses must go to the smith, or the veterinary surgeon must be called to look after them. The next day they are all right, and a comfort-

able little bill is sent in and paid without question, when it is any odds that there never was anything whatever the matter with them.

"The coachman decides who shall attend the stable, and while, of course, he must keep his charges in pretty good general condition, he is not likely to secure the best veterinarian in case of real illness, because the first-class man would hardly enter into any scheme to rob the owner. So the unscrupulous surgeon is called in, charges double the price, and does inferior work. If the owner should by chance have an idea of getting a particular man to do the work, in a majority of cases his plans are knocked in the head by the treachery of the coachman. Medicine ordered is tossed out of the stable window; the horses do not get better; the coachman claims to know a man who can fix them up in no time. He is called, and they are fixed up, and the two conspirators divide the profits. So it goes, through all the ways in which it is possible for the horse owner to be fleeced, beginning with his purchase of the horse, and winding up with the carriage man and the things that are needed about a stable.

"The whole system is based, of course, on the ignorance of the owner, and it is surprising that any one could remain content to know so little about his own property, while so often professing a genuine love for it. It is safe to say that not one out of ten owners of horses in the city has any intelligent idea of them, what it should cost to keep them, when they are sick or well, well or badly fed, shod and cared for, or why he ever bought them in the first place. The whole thing is planned and arranged for him, and he accepts without a question, and pays the bills."

CORRESPONDENCE.

THE TRUE STORY OF THE ARMY VETERINARY SURGEON.

FLUSHING, NEW YORK CITY, July 18, 1898.

Editors American Veterinary Review:

DEAR SIRs:—The item of the *Breeder's Gazette* in regard to "Competent Veterinarians for the U. S. Army," as cited in your news columns of the July issue, needs correction, as otherwise the faulty comprehension of the present status of the army veterinarian, as stated in this article, may be carried further and lead to exaggerations in our petitions to Congress which may result in harm rather than good.

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To begin with, the opinion that it is "impossible for the army veterinarian to obtain a higher rank than color-sergeant" is correct only in so far as he cannot advance in rank or pay. But the U. S. Army veterinarian is *not* a soldier, therefore he cannot be a sergeant; he is a civilian without any specified rank. It is true that the official warrant—not commission—transmitted by the War Department to the newly-appointed army veterinarian reads that he is "appointed a veterinary surgeon with the rank of sergeant-major, and that he is to be respected accordingly." But these warrants were printed shortly after the Civil War, and, although still used, are no longer in accordance with the present opinion of the War Office. The Adjutant-General and the Secretary of War have repeatedly ruled that the "veterinary surgeon is a civilian employed to treat sick and disabled public animals." This puts him in a doubtful position as to his rank, but gives him personally more freedom in the exercise of his duties, and a chance to associate with officers if his culture enables him to do so. But, unfortunately, there have always been some veterinarians in the army who were perfectly willing to be recognized as sergeants, men whose inborn subordinate souls were tickled by the friendship of the commissary sergeant as the lord of the store-room. So I say that the old phrase, mentioned again in the above article, that "the day of the horse-doctor has passed," is not true; we have them yet with us and the woods are full of them.

Of course, the majority of those who wish to see the army veterinary service reorganized are not personally interested in it, but wish to have the disgrace wiped out that still hangs over the American veterinary profession. Yet I fear the bill before Congress will never be a success, and I have repeatedly said so. To ask Congress to give the army veterinarian a commission as second lieutenant is simply to ask a personal favor without any guarantee that the veterinary service will thus be materially bettered. From my knowledge of the army service it would not do so. Therefore, we should present to Congress a bill which first of all guarantees the Government an efficient veterinary service by making it a branch of its own. That this can only be accomplished by a competent veterinary corps is self-evident, but the officers of this corps should not be mere second lieutenants, but should rank at least from captain downward. And they should not be men who are only able "to treat sick and disabled public animals," but they should have gained special

knowledge on the breeding, selection and use of cavalry and artillery horses and the draft mules. Such has never yet been attempted in our army, and I have recently seen horses passed for U. S. service which were about as fit for military work as a professional shoemaker would have been for a gunner on the U. S. S. *Brooklyn*.

I believe, however, that our chance for the passage of a proper bill will soon arrive. From correspondence with members of Congress I have learned that the failure of the passage of the veterinary bill is not due to want of recognition of the veterinary profession, but it is mostly based on the objection of the members of Congress to creating a new class of officers for which there is no pressing necessity. So we will have to wait for a chance to demonstrate that our services are really needed. Thus far the Spanish-American war has not been lucky for our profession, while it has given a wonderful start to many other branches of the service. Surely, the several dismounted regiments of United States cavalry, and the heroic "rough riders," sung as such already in American poetry, charging "on foot" the hills of Santiago, is glory surrounded by sarcasm. But let us wait for the changing fortunes of war and see if not soon the urgent need of the cavalry horse and the ambulance mule will be demonstrated to those who wish to see it. If so, the war will yet prove that these public animals cannot properly be taken care of by detailed cavalry and infantry officers, nor by the farriers of the troops, as is largely the case at present. I believe that we are nearer the realization of our hopes and the result of our years of labor in this direction than many of us may think.

It is quite interesting at present to mention the personnel of the Spanish veterinary corps. According to the *Berliner Tierärztliche Wochenschrift*, it consists of one first class veterinary inspector (colonel), 2 second class veterinary inspectors (lieutenant-colonels), 9 veterinary majors, 73 veterinary captains, 87 veterinary lieutenants. Of these 235 officers there are one veterinary major, 11 veterinary captains and 64 veterinary lieutenants in Cuba. From the large number of veterinary officers needed in Cuba we must conclude that large bodies of cavalry are operating there. Some of our young cavalry lieutenants with their West Point airs may yet be shocked by turning a veterinary major or captain his prisoner.

OLOF SCHWARZKOPF.

Editor

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VETERINARIANS AS JUDGES.

LITTLETON, IOWA, July 7, 1898.

Editors American Veterinary Review:

DEAR SIRs:—The advancement that colleges are making, both in research and education, calls for more positive decisions, both from a theoretical and practical standpoint, from the coming graduate. I have chosen a very interesting and valuable subject, though I feel that I am unfit to eliminate any new ideas, but I have been tempted from others as well as from observations, to call attention to the lack of growth in the veterinary profession of thorough and competent judges. We occasionally witness men in the profession giving their opinions as to the soundness of horses, when in reality the animals are no more fit to stand an examination for such than a Scotch terrier is fit for a fox chase. It is a great pity that colleges and other institutions don't give this matter more thought and attention, and try to impress on their students more knowledge of how to examine, and go about it in a professional and systematic manner, thus overcoming the many obstacles and embarrassments that they are prone to in daily practice, by the laity or "quack" who has pointed out some defect or abnormality that the veterinarian has failed to find, and has thus gained more confidence and imparted it to the owner, to think that veterinarians are not fit subjects for judges. I may say, though I am not authentic, that there are few graduates who can be relied on to give a thorough and sound opinion as to conformation and soundness of limb and wind of a horse.

Why is it we see so often in the show ring and other places, men who are supposed to be horsemen, if I may be allowed to use the term, acting in the capacity of expert judges, and if these same gentlemen were asked the question as to the anatomical parts they were examining they no doubt would feel as if they desired some oxygen for relief? Are these gentlemen fit to give a correct authentic opinion as to conformation, soundness, predisposition and transmission, when ignorant of the parts they are examining? Then what is the veterinary profession coming to? I may say a good deal of this humbuggery and matter-of-form business is due to the present veterinarian lacking in his early training before going to college, and during his stay within the walls of the latter. As long as there are so many avenues or loop-holes for infection, so to speak, in the training of the present student, so long will the quack and the laity be called in to give their opinions, both in the show ring

and other public places. A few years ago, when breeding and prices were raging high and fever at boiling point, and every person, from the huckster to the millionaire, was trying to raise a world-beater, it was amusing to hear some speak of well-formed horses if the same were fat and well groomed, or in racing condition, when a glance over your shoulder would have convinced you in a second that the animal hadn't a leg nor foot to stand on, even if the sire was so and so, and the dam so and so. It became quite a common practice for veterinarians to overlook soundness and have their attention drawn to breeding and merits. So long as the animal was fast and well bred, big-headed, long-backed, curby hocked and possibly a spavin or some other exostosis present, they passed their opinion as sound, never realizing the fact that they were being employed to judge conformation and soundness, and not for speed and merit. It is common for veterinarians to have a good point or two run away with their judgment, when a dozen or so of other defects or abnormalities are staring them in the face. It would be much better if they would start out and look for unsoundness and let the good points come to them naturally. They don't need judging.

The question may arise, how can this delicate matter be rectified among veterinarians? if the profession intends to elevate itself in this direction to a higher standard, so as to have recognition from those who have been duped in the past, and also to put aside the would-be horseman (expert judge) and self-made judge. The right spirit will do much towards promoting the growth of better judges in the future, thus bringing the profession up to a higher standard so as to maintain our standing in the eyes of our cousins across the water. We must show our superior ability as veterinarians as judges over the educated people and pretender when called in for an opinion as to soundness, whether we are foreign or American born, or whether we hold diplomas from this side or the other. It is a matter of professional duty, and one that we can't overlook, when our mental faculties are put to task to really find out whether or not we are masters of the situation.

ROBERT ROBB, V.S., M.D.

LIABILITY OF VETERINARY SURGEONS FOR THEIR OPINIONS UPON SOUNDNESS.

BROOKLYN, July 19, 1898.

Editors American Veterinary Review:

GENTLEMEN:—In your comments in this month's REVIEW,

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upon the responsibilities of members of our profession in their relation as examiners of horses for soundness, you say that "malice and prejudice" must be proven before liability is incurred, and that all men familiar with veterinary jurisprudence hold this belief.

Now, from my own knowledge and experience, I hold a diametrically opposite opinion, and I have yet to meet the member of my profession who is influenced by "malice and prejudice" in examining horses for soundness, but I hold that all those familiar with veterinary jurisprudence are alive to the fact that they are legally bound to use all known means to fortify their position; and that, failing to do so, they are legally liable to that extent to the vendor or purchaser. In support of this opinion, allow me to refer you to the London *Veterinary Journal* for June, 1898, at page 439, where the liability of veterinary surgeons in their examination of horses for soundness is discussed at a society's meeting, setting forth one instance where an examiner, pronouncing an animal sound, had to reimburse the purchaser \$500; and another, where the surgeon, also certifying to soundness, had to pay the value of the animal, including railway transportation, and the fees of two other veterinary surgeons, who pronounced the animal unsound; and they were held thus liable, not because of "malice or prejudice" in their decision, but because they omitted to use all the recognized means for detecting defects that did exist when they passed the horses as sound; or, in other words, because their examination was superficial.

These cases are just the reverse of the one under discussion, but the principle, or "veterinary jurisprudence," is identical.

In your July issue of the REVIEW you say that I doubtless have condemned many a horse upon a superficial examination. This I grant you; for when the unsoundness is ocularly demonstrated, a minute examination is unnecessary, and one is then justified; but in the case before us, the animal that was condemned by Dr. Ackerman as being unsound "at both ends," was, the same week, submitted to the inspection of three other veterinary surgeons, each of whom carefully examined the animal, and certified to the same being sound.

I would suggest that this matter of veterinary jurisprudence is of sufficient importance to repay all members of our profession for any time spent in understanding the same, and would not advise any reader of the REVIEW to be carried away with the impression that "malice and prejudice" on their part must

be proven before legal responsibility is sustained, as per your definition of veterinary jurisprudence.

Very truly,

L. McLEAN, M. R. C. V. S.

AN ORIGINAL TREATMENT FOR ATROPHY OF MUSCLES.

BELVIDERE, ILL., July 12, 1898.

Editors American Veterinary Review:

DEAR SIR:—I wish you would publish in your valuable medium of thought (the REVIEW) this formula, as I never saw it in any of my veterinary journals or text-books. It is for "sweeny," or atrophy of any muscle:

℞ Argenti nit., grs. x.
Aque, ℥i.

M. Sig. Inject hypodermically over muscle half a drachm every five or six inches; repeat in two or three weeks, or as soon as swelling subsides.

I find this much better than the unsightly setons or blisters.

Yours truly,

F. B. ROWAN.

REVIEW OF BIOLOGY.

PROTECTING ACTION OF THE LIVER AGAINST CARBUNCULAR INFECTION [*By M. Rogers*].—To appreciate the conditions of the struggle between the organism and pathogenous agents in capillaries, the author injected rabbits and guinea pigs, in various parts of the circulatory apparatus, with cultures of anthrax virus. The results vary with the blood-vessel which has given entrance to the culture. Death occurs in from 36 hours to three days after, according to the dose and as the injection is made in the aorta, the femoral artery, peripheric veins or the peripheric end of the carotid. But, when it is made in an intestinal vein, running to the portal vein, animals will live indefinitely. Then the liver plays a protecting part, efficacious and powerful, which is more marked in infections than in intoxications. A toxic dose, double that which would be fatal through the peripheric veins, is unable to kill when introduced in the portal vein. A quantity of anthrax virus, sixty-four times superior to that which kills by the peripheric veins, is completely annihilated by the liver. This figure, already large, may be below reality; because, when animals succumb after inoculation by the portal vein, the question may always be put: Has the entire injected liquid gone through the

liver, or created a (of Biol.)

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liver, or a small part of it passed into the peritoneum and created a centre of local infection, the cause of death?—(*Soc. of Biol.*)

CYSTICERCUS TENUICOLLIS IN THE CARDIAL WALL OF A SHEEP [*By MM. Railliet and Chr. Morot*].—It is quite common to find in the thickness of the cardiac muscle of mammalia, cysticerci whose normal habitation is the connective tissue; such are the *cysticercus cellulosæ* and the *cysticercus bovis*. The *cysticercus tenuicollis*, which ordinarily develops in serous membranes, may, also, go astray in muscles. But Beemsor is the only author who mentions its presence in the heart; he claims to have seen it twice in that organ in cattle. At the inspection of a fat and stale ram killed at the slaughter-house of Troyes, a cysticercus was obtained from the superficial coat of the ventricular myocardium, which under microscopic examination proved to be a *cysticercus tenuicollis*. As it has already been observed for this cysticercus, when located in muscles or in parenchymas, the hooks of the parasite were reduced in number and in size.—(*Soc. of Biol.*)

POLYDACTYLIA IN A HORSE [*By Mr. Briot*].—A mustang from South America presents on both forelegs an internal finger, well-developed, smaller than the principal digit, with fetlock and hoof not extending to the ground; the hoof was pared off now and then. The principal digit is normal and free from any deviations in its axis. The radiographic view of the leg shows that the supplementary digit is the second finger; the metacarpal is more developed than in the normal condition; there are two large sesamoids, smaller than those of the principal digit. Cases of polydactylia are more frequent in America than in Europe; by the absence of deformation of the middle finger, they come nearer the ancestral type. Is this fact due to the wild life of the horse, or is it that the American horse is of indigenous origin and of more recent formation than the European horse, and consequently more subject to atavism? The author puts the question without answering it.—(*Soc. of Biol.*)

A CASE OF PSEUDO-TUBERCULOSIS OF FELINE ORIGIN [*By Mr. Galavielle*].—A cat being suspected of rabies, its brain was inoculated into a guinea pig and a rabbit. These two animals died with pseudo-tuberculosis of the spleen in one and of the liver in the other. With the tubercles obtained from them, cultures were made of bacilli, isolated or in rods, which were inoculated to guinea pigs, rabbit, white rat and a cat. In this way, the disease was reproduced under two forms; one

with diffused lesions without tubercles, another with tubercles, according to the dose and the weak or strong condition of the virulency. The cat which had served for the beginning of the experiment had been said by a veterinarian to suffer with inflammation of the liver, spleen and intestines. The same lesions were found in the inoculated cat. Consequently a bacillar tuberculosis can be found in this species analogous to those already described under the name of bacillar pseudo-tuberculosis in guinea pig, mice, rabbit and sheep.—(*Soc. of Biol.*)

OBITUARY.

HENRY S. VANDERHOFF, M. D., V. S.—At Sing Sing, N. Y., on Monday, July 4, 1898, at 9 P. M., this estimable veterinarian closed a long sickness, the prolongation of which had been regarded as miraculous, as he had suffered from serious gastric disease for many years, after becoming so reduced as to cause his death to be imminently expected, but from a wonderful constitution and great will-power he would rally and give hopes of ultimate recovery, when his insatiable pursuer would again prostrate him. He practiced human medicine for a number of years in the Eastern District of Brooklyn, N. Y., but about 1882 entered, and in due time graduated from the Columbia Veterinary College, in New York, locating in Brooklyn, where he afterwards became associated with the Bureau of Animal Industry in its crusade against pleuro-pneumonia, serving as an inspector for some five years. When that work was completed he removed to Sing Sing, where he has resided since, but owing to his malady did not engage in active practice. From his attending physician, who was much interested in the scientific aspect of his case, we have received the following notes: "Cause of death, cicatricial stenosis of pylorus, chronic dilatation, and inflammation of stomach. Occasion of death on July 4, anæmia, prostration from heat, heart failure."

VETERINARY INSTRUMENTS.—Through the advertising pages of the REVIEW the celebrated house of Hauptner, of Berlin, Germany, is seeking American trade among veterinary surgeons. Their catalogue, possibly the most elaborate ever issued by a veterinary instrument firm, contains 3000 illustrations and descriptions of instruments, and will be sent to any veterinarian, post free, on demand. Their announcement illustrates Dieckerhoff's trocar for phlebotomy, which is fast supplanting the fleam in Europe. Forwarded in a neat case, post free, for one dollar.

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SOCIETY MEETINGS.

UNITED STATES V. M. ASSOCIATION.

As the arrangements for the Omaha meeting near completion it becomes more and more evident that an exceptionally interesting programme is being prepared for those who are so fortunate as to attend. In fact, it would seem that no member of this association or veterinarian practitioner within reach of Omaha can well afford to miss this meeting.

In addition to the regular programme, such as reports of committees, with papers and discussions, additional features of much interest have been added.

Practitioners must certainly look forward to the clinical demonstrations of several major operations with increasing interest, and all who are interested in municipal or local meat inspection, cannot but realize that the discussion of this subject from its several standpoints by members of the profession who have given much study to this subject, and to which will be added an extensive and varied display of the tissues of diseased animals, affords an unusual opportunity for becoming acquainted with the various details of information so important to one who may be called upon to perform the duties of meat inspector.

The arrangements made by the local committee for the entertainment of all who attend, insures that their personal comforts will be looked after, and everything will be done to make everybody have a good time.

The following is an outline of the programme, which will be followed as closely as possible:

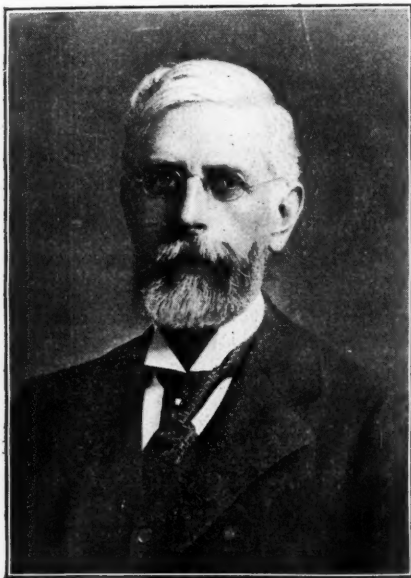
Headquarters.—Millard Hotel.

FIRST DAY.—Tuesday, Sept. 6, 1898.—Clinic, 8 to 9.30 A. M. 10 o'clock, annual meeting convenes. Address of welcome, Hon. Mayor of Omaha. Response, Prof. Roscoe R. Bell, of New York. President's address. Business of the Association. Ladies taken in charge by local committee of ladies, visiting the exposition.

Evening.—8 P. M., Reception by the Nebraska Association.

SECOND DAY.—Clinic, 8 to 9.30 A. M. 10 o'clock, session reconvenes. Business of Association. Discussion of meat inspection. Regular programme. Ladies to visit the cities of Omaha, South Omaha, and Council Bluffs in tally-hos or trolley cars.

Evening.—Ladies' theatre party or other entertainment. Members' and visitors' banquet at the Millard Hotel.



D. E. SALMON,
WASHINGTON, D. C.,
President.

Dr. M. H. Reynolds, St. Anthony Park, Minn., "A Study of the Healing Process in Ovariectomy in Cattle"; illustrations by numerous photographs.

Dr. L. A. Merillat, Chicago, Ill., "Arytenoideraphy,"* a new surgical treatment for roaring, may be demonstrated in clinic."

Dr. H. D. Gill, New York, "Diseases of the Dog."

Dr. W. B. Niles, Ames, Ia., "Anæsthetics and Best Method of Administration"; demonstrated in clinic.

Dr. C. C. Lyford, Minneapolis, Minn., "A Radical Operation for Cure of Contracted Hoofs"; demonstrated in clinic.

* Operation described in this issue under "Reports of Cases."

THIRD DAY.—Business of the Association. Continuation of literary programme. Tour of shopping districts for the ladies, or trolley parties if preferred.

Evening.—Meeting of the Experiment Station Veterinary Medical Association.

The following is the list of authors and papers as far as completed:

Dr. Tait S. Butler, Starkville, Miss., "Methods of Confining Animals for Surgical Purposes," with demonstrations in the clinic.

Dr. R. R. Bell, New York, "Acute Indigestion in the Horse."



THOMAS B. RAYNER,
PHILADELPHIA, PA.,
Vice-President Eastern States.



Vice-President

it included the collection from all upon the osteoporosis were discussed at the meeting in Nashville, such interest that the College was instructed to report on coming matters.

It is expected following the State Veterinary W. L. W. Adams State Veterinary University; C. C. L.



A. T. PETERS,
LINCOLN, NEB.,
Vice-President Western States.

it includes a year's study and the collection of information from all parts of the country upon the subject of rabies and osteoporosis. These subjects were discussed to some extent at the meeting last year at Nashville, and proved to be of such interest and importance that the Committee on Diseases was instructed to make special reports on these topics for the coming meeting.

It is expected that the following members will demonstrate operations in the clinics: W. L. Williams, New York State Veterinary College; John W. Adams, Veterinary Department University of Pennsylvania; C. C. Lyford, Minneapolis,

Dr. S. S. Whitbeck, Decorah, Ia., "Practical Points in Country Practice."

Dr. H. D. Fenimore, Knoxville, Tenn., "Game and Cattle Diseases in Tennessee."

Dr. H. D. Gill, New York, "Further Study of Antitoxins."

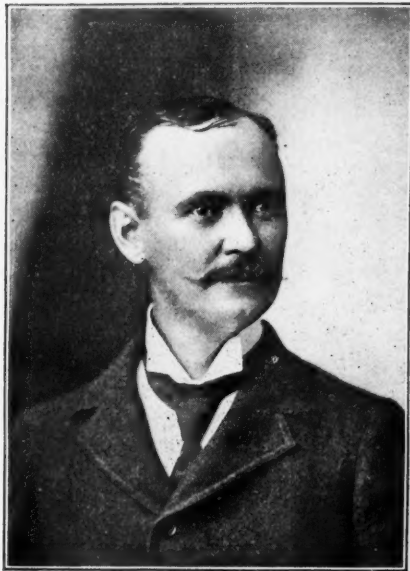
Dr. M. H. Reynolds, St. Anthony Park, Minn., "Control of Hog Cholera, Especially in Minnesota."

Dr. James Law, Cornell University (*title not received*).

Dr. A. J. Anderson, Seward, Neb. (*title not received*).

Dr. Joseph Hughes, Chicago, Ill. (*title not received*).

The report of the Committees on Diseases is one of especial interest to the profession;



W. C. RAYEN,
NASHVILLE, TENN.,
Vice-President Middle Western States.



SESCO STEWART,
KANSAS CITY, KANSAS,
Secretary.

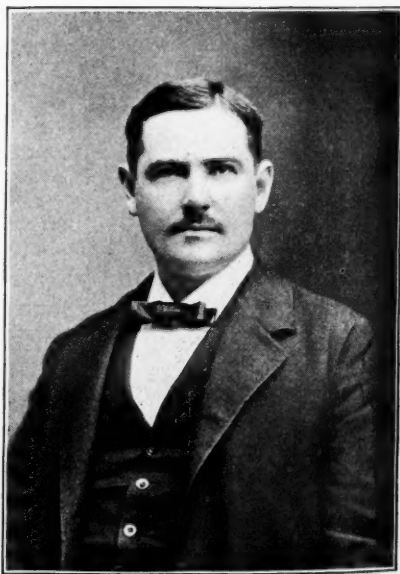
casting and confining for surgical purposes; administration of anæsthetics.

These operations will be performed only on animals requiring such operations for the relief of disease or deformity.

The subject of meat inspection will be discussed from the following standpoints: "Methods of Educating the Public as to the Necessity of Meat Inspection"; "The Necessity for Consolidation of Municipal Slaughter-houses into Large Abattoirs under Municipal Control"; "Slaughter-house Inspection"; "Retail Market Inspection"; "The Disposal of the Flesh of Tuberculous Animals."

Minn.; L. A. Merillat, McKillip Veterinary College; H. D. Gill, New York College of Veterinary Surgeons; Tait S. Butler, Starkville, Miss.; W. B. Niles, Veterinary Department Iowa Agricultural College; Dr. Joseph Hughes, Chicago Veterinary College.

It is expected that the clinic will include the following operations: Docking, pricking, and straightening of tails as done in cities; extraction of teeth and other dental operations; ovariectomy in the mare and other animals; radical operations for contracted hoof; median neurectomy; new operations for the cure of bog spavin;



WM. HERBERT LOWE,
PATERSON, N. J.,
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The discussion will be opened by the following members: Dr. W. Horace Hoskins, Philadelphia, Pa.; Dr. Leonard Pearson, Philadelphia, Pa.; Dr. C. A. Cary, Auburn, Ala.; Dr. C. J. Sihler, Kansas City, Kas.; Dr. Chas. W. Heitzman, New Orleans, La.

The committee in charge of the collection of diseased specimens hope to display these specimens in their fresh or natural state, and have arranged to exhibit full carcasses of sheep and swine and quarters of beef. They hope to display most of the following list of diseases: *Cattle*.—Actinomycosis, tuberculosis, Texas fever, anthrax, bruise, septicæmia, capillary hæmorrhage, leucocythemia, cysticercus bovis, disease of liver, disease of kidney, disease of udder. *Swine*.—Cholera, swine plague, tuberculosis, leucocythemia, cysticercus cellu, abscess, disease of kidney, disease of liver, disease of bowel, disease of lung, disease of skin, disease of uterus, extra-uterine pregnancy. *Sheep*.—Ischemia, emaciation, cysticercus T., disease of liver, disease of lungs, disease of bowel, disease of skin. Any other disease of special interest found will be included in this collection.

The Indiana State Board of Health contemplates sending a delegate to Omaha to hear the discussion on meat inspection. Other States should do likewise.

OFFICERS 1897-8.

President.—D. E. Salmon, Department of Agriculture, Washington, D. C.

Vice-Presidents.—T. B. Rayner, Highland Ave., Chestnut Hill, Philadelphia, Pa.; W. C. Rayen, 189 N. College St., Nashville, Tenn.; A. T. Peters, Experiment Station, Lincoln, Neb.

Secretary.—S. Stewart, 7½ S. James St., Kansas City, Kans.

Treasurer.—Wm. Herbert Lowe, 190 Ellison St., Paterson, N. J.

COMMITTEES FOR 1897-8.

Executive.—Tait S. Butler, Starkville, Miss. (chairman); F. H. Os-good, 50 Village St., Boston, Mass.; W. Horace Hoskins, 3452 Ludlow St., Philadelphia, Pa.; W. L. Williams, Ithaca, N. Y.; T. J. Turner, care of Kingan & Co., Indianapolis, Ind.; M. Stalker, Ames, Ia.; M. H. Reynolds, St. Anthony Park, Minn. *Ex officio*—D. E. Salmon, T. B. Rayner, W. C. Rayen, A. T. Peters, S. Stewart, and Wm. Herbert Lowe.

Local Arrangements.—A. T. Peters, Lincoln, Neb. (chairman); H. L. Ramacciotti, 28th and Leavenworth Sts., Omaha, Neb.; John Hall, Falls City, Neb.

Finance.—M. Stalker, Ames, Ia. (chairman); M. H. McKillip, 1639 Wabash Ave., Chicago, Ill.; S. Stewart, Kansas City, Kans.

Publication.—W. L. Williams, Ithaca, N. Y. (chairman); N. P. Hinkley, 359 Ellicott St., Buffalo, N. Y.; Roscoe R. Bell, Seventh Ave. and Union St., Brooklyn, N. Y.; W. B. Niles, Ames, Ia.; S. Stewart, Kansas City, Kans.

Incorporation.—W. Horace Hoskins, 3452 Ludlow St., Philadelphia, Pa.; T. Bent Cotton, Mt. Vernon, Ohio; A. W. Clement, 916 Cathedral St., Baltimore, Md.

Army Legislation.—J. P. Turner, Fort Meyer, Va. (chairman); Austin Peters, Walnut Ave., Jamaica Plain, Mass.; A. G. Vogt, 119 Plane St., Newark, N. J.; E. P. Niles, Blacksburg, Va.

Resolutions.—A. W. Clement, 916 Cathedral St., Baltimore, Md. (chairman); Leonard Pearson, 3608 Pine St., Philadelphia, Pa.; C. A. Cary, Auburn, Ala.; A. T. Peters, Lincoln, Neb.; S. Stewart, Kansas City, Kans.

Intelligence and Education.—Leonard Pearson, 3608 Pine St., Philadelphia, Pa. (chairman); W. B. Niles, Ames, Ia.; John M. Parker, 24 Essex St., Haverhill, Mass.; Olof Schwarzkopf, Flushing, N. Y.; R. R. Dinwiddie, Fayetteville, Ark.

Diseases.—A. T. Peters, Lincoln, Neb., (chairman); C. A. Cary, Auburn, Ala.; W. H. Dalrymple, Baton Rouge, La.; Joseph Hughes, 2537 State St., Chicago, Ill.; J. F. Winchester, Lawrence, Mass.

RESIDENT SECRETARIES.

Alabama, C. A. Cary, Auburn; *Arizona*, J. C. Norton, Phoenix; *Arkansas*, R. R. Dinwiddie, Fayetteville; *California*, Fred C. Pierce, 1724 Webster St., Oakland; *Connecticut*, R. P. Lyman, 328 Asylum St., Hartford; *Delaware*, H. P. Eves, 507 W. 9th St., Wilmington; *District of Columbia*, A. M. Farrington, Department of Agriculture, Washington; *Georgia*, Geo. B. Blackman, Rome; *Illinois*, F. S. Schenleber, Morris; *Indiana*, J. R. Mitchell, Evansville; *Iowa*, T. A. Bown, Chariton; *Kansas*, R. H. Harrison, Atchison; *Kentucky*, F. S. Eisenman, 222 E. Main St., Louisville; *Louisiana*, W. H. Dalrymple, Baton Rouge; *Maine*, Wm. S. Lord, U. S. Hotel, Portland; *Maryland*, Wm. Dougherty, 1035 Cathedral St., Baltimore; *Massachusetts*, J. F. Winchester, Lawrence; *Michigan*, S. Brenton, 83 5th St., Detroit; *Minnesota*, M. H. Reynolds, St. Anthony Park; *Mississippi*, J. C. Robert, Agricultural College; *Missouri*, Chas. Ellis, 3230 Locust St., St. Louis; *Montana*, M. E. Knowles, Butte; *Nebraska*, W. D. Hammond, Wayne; *New Hampshire*, Lemuel Pope, Jr., Portsmouth; *New Jersey*, J. P. Lowe, Bloomfield Ave., Passaic; *New York*, John Faust, Poughkeepsie; *North Carolina*, A. S. Wheeler, Biltmore; *North Dakota*, T. D. Hinebaugh, Fargo; *Ohio*, T. Bent Cotton, Mt. Vernon; *Pennsylvania*, W. H. Ridge, Trevoise; *Rhode Island*, Walter L. Burt, 26 Tabor Ave., Providence; *South Carolina*, Benj. McInnes, Charleston; *South Dakota*, M. J. Treacy, Fort Meade; *Tennessee*, Joseph Plaskett, 529 Broad St., Nashville; *Texas*, M. Francis, College Station; *Virginia*, E. P. Niles, Blacksburg; *Washington*, S. B. Nelson, Pullman; *West Virginia*, L. N. Reefer, 1406 Chapline St., Wheeling; *Canada*, W. J. Hinman, Winnipeg, Manitoba.

RAILROAD FARES.

Excursion rates to Omaha are in force from all points south of the Potomac River and west of Buffalo and Pittsburg, while an excursion rate on the certificate plan has been granted by the Railroad Associations governing the territory east of Buffalo and Pittsburg, to and including the New England States. Persons desiring to avail themselves of the certificate plan as above referred to, will pay full fare going and will be returned at $\frac{1}{3}$ fare provided they secure a certificate from the

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agent at the starting point and have it duly countersigned at Omaha by the Secretary and special railroad agent. It is quite probable that excursion rates will be even lower than now offered before our meeting convenes, and members are urged to inquire about such special rates.

OHIO-MICHIGAN ASSOCIATIONS MEETING.

Pursuant to call, a joint session of the veterinarians of Ohio and Michigan convened in a court-room in the Lucas County Court-House, Toledo, Ohio, Monday, July 11. The meeting was called to order at 3 P. M., and organized by selecting Dr. Walter Shaw, of Dayton, Ohio, as Chairman, and Dr. W. H. Gribble, of Elyria, as Secretary.

Chairman Shaw, in a few well-chosen remarks, called attention to the fact that he believed these joint sessions productive of much good, both socially and professionally, and regretted that the attendance was not larger.

The Secretary was instructed to make a roll-call, and found the following present:

Ohio.—Walter Shaw, Dayton; E. H. Shepard, Cleveland; W. E. Wight, Delaware; T. B. Hillock, Columbus; H. Fullstow, Norwalk; R. C. Hill, West Alexander; J. E. Taylor, O. J. Carter, J. V. Newton, W. E. McBaine, W. H. McHugh, Roy Davis, Geo. Young, — Cook, of Toledo; Dr. Smith, Bowling Green; H. J. Helwig, Elmore; C. C. Yule, Leipsic; J. H. Blattenburg, Lima; P. Dillahun, Springfield; W. H. Gribble, Elyria; W. B. Washburn, Tiffin.

Michigan.—E. A. A. Grange, Detroit; Geo. Dumphy, Quincy; Dr. Hawkins, Detroit; J. S. Hamilton, Chelsea; Dr. Buchanan, Detroit.

The Chair stated that an address of welcome would be delivered by Mayor Jones, but that he was unavoidably detained, and pending his arrival we would listen to a paper by Prof. E. A. A. Grange, of Detroit, on the subject, "Biological Products Used in Diagnosis and Treatment of Diseases." Of course his paper especially treated of tuberculin, mallein, etc., as a means of diagnosis, and while believing in tuberculin fully, he advised all to go a little slow and not put too much faith in mallein as a diagnosticating agent of glanders. He gave the views both *pro* and *con* of eminent European veterinarians, showing great diversity of opinion, and said he himself had injected five, had killed two, finding no evidence of glanders, and, in fact, no evidence of any specific disease. He is satisfied that antitoxin is a prophylactic in tetanus, and in specially infected (if I'm allowed the term) districts, could and should be used

before performing surgical operations. As regards hog cholera, a large amount of experimenting in different parts of the United States is in progress, with good prospects of a product being produced that would cause immunity for six to ten months.

A general debate followed this paper, which was exceptionally interesting, especially as regards tetanus, cases being cited wherein animals from heat or nervous shock have exhibited all the symptoms of so-called tetanus, and in ten or twelve hours have been perfectly well, which would certainly be impossible if all cases of tetanus were of microbean origin.

Mayor Jones, of Toledo, was now introduced, and gave us a pleasant as well as instructive little talk, calling especial attention to the fact that veterinarians should never forget to be humanitarians—should practice this as well as preach it. Of course, he extolled the beauties, grandeur and business greatness of the city of Toledo, extending to us a cordial welcome.

Dr. Hawkins, of Detroit, Mich., followed the Mayor by an answering speech in the name of this joint session; he put special stress on the fact that Toledo recognized no veterinary surgeon on her Board of Health, and thought the Mayor in his official capacity could assist materially in improving this condition.

The regular programme had arranged for a banquet Tuesday night, but as many thought it best to have it the first night, as some might go home, it was decided to put the question to vote, which was decided in preference of the latter.

Dr. Newton moved to adjourn this meeting until 9 A. M. Tuesday and that now we go in a body to the electric cars and from thence to Lake View Park. After being duly supported and put to vote the Chair declared the motion carried.

The ride from the city to Lake View Park is about five miles and a delightful view, passing the magnificent residences of Toledo's wealthy citizens. The park itself being at the junction of the river with the lake was pleasantly cool considering the thermometer was about 90° F. in the shade.

The banquet can be better imagined than described, it was simply *par excellence*, and those not present missed a treat. After attending the performance at the theatre we wended our way back to the city and to our beds. There were present several of the wives of members, but we failed from lack of gallantry to procure their names, and we offer them an apology. Before separating for the night it was decided to meet at the

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Jefferson House at 8 A. M., when carriages would be in waiting to show us the city.

Tuesday, July 12.—Members and wives met at Jefferson House at the appointed hour, when we entered carriages and were taken a good ride around and about the city, reconvening at the Court House at 10 A. M., with Dr. W. Shaw in the chair. A communication was read severely commenting upon an advertisement appearing in the AMERICAN VETERINARY REVIEW of "Red Ball Stock Food," wherein it reads: "It prolongs the treatment of acute indigestion and other diseases * * * enabling the practitioner to secure adequate credit for the cure," a principle in opposition to the feelings of all honest veterinarians and an advertisement not in accord with the views of a veterinarian's patrons.

Dr. E. H. Shepard, of Cleveland, now read an able paper on "Acute Indigestion"; * a time-worn subject, but ever apparently new, as was plainly shown in the very lengthy and general discussion which followed its reading.

Dr. J. H. Blattenburg gave a clinical report of an operation for roaring and its results.

Dr. Hawkins gave a very interesting report of a case of bilateral paralysis, with almost complete recovery.

Adjournment was now had until 2 P. M.

Afternoon Session.—Session called to order by Dr. Shaw, who stated he must soon leave, and asked to be relieved as chairman.

Dr. Newton moved and Dr. Wight seconded a motion that Dr. Hawkins act as Chairman. Carried.

Dr. Dumphy (who is State Veterinarian of Michigan) gave us a history of his experience in the use of tuberculin as a diagnostic agent. Gave history of a case wherein tuberculosis was feared and a diagnosis asked for; tuberculin did not react, while physical appearance would indicate the disease. The cow was nevertheless destroyed, when pus-sacks and sinuses were found about the rumen, liver, diaphragm and heart. The liver adhered to peritoneum, the peritoneum to diaphragm, the diaphragm to pleura, and so on upward and forward to the heart, where a nail without any head was found.

The debate following led into a discussion of meat and milk inspection, which the Chair stopped by calling on Dr. Gribble to read a paper on that subject.† A general discussion

* Published elsewhere in this issue.

† Will be published in September REVIEW.

followed the reading of this paper, when Dr. Shepard moved and Dr. Washburn seconded a motion that the Secretary be instructed to have 1000 copies of this paper printed and distributed to such veterinary surgeons who asked for them. Carried.

Dr. Hawkins now left and Dr. Wight was called to the chair.

A general discussion now followed, on almost all the diseases known in veterinary practice, and almost every member present desired some information in the treatment of parturient apoplexy and azoturia. This general discussion continued until evening, when it came time to adjourn.

Dr. Newton moved and Dr. Washburn seconded that a vote of thanks be given the readers of essays, and those that reported cases and also Mayor Jones. Carried.

Dr. Gribble moved, Dr. Shepard seconded, that a vote of thanks be tendered the veterinarians of Toledo for their kind entertainment during our meeting here. Carried.

The next session of the Ohio Association will be held in Columbus during January, 1899.

Adjourned.

The Secretary regrets very much not having had a stenographer, as the discussions not reported contained far more valuable and practical information than the papers read, the papers simply furnishing the subjects.

WM. H. GRIBBLE, D. V. S., *Secretary*.

NOTES OF THE DUAL MEETING.

Dr. Hillock's son was very fond of spring chicken-leg until he discovered they belonged to frogs, when his fondness disappeared.

Dr. Wight is said to have gone without his dinner so as to do justice to the banquet.

Dr. Buchanan was the ladies' man of the crowd. *Canadian*

The Lucas County Court House is an ideal place to meet in; and everyone seemed to try to make the other feel at home.

Dr. Fulstow was much interested in the high-kicking ladies, locating himself on one of the front seats of the theatre.

Some of the old men thought they were marksmen until one of the boys got hold of a gun.

Dr. Taylor is a lover of azoturia, having to go out to see cases between acts.

After adjournment Dr. Washburn was still seeking information on milk fever.

Dr. Gribble only just missed his train, but he had to sit and

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MAINE VETERINARY MEDICAL ASSOCIATION.

The regular meeting of the association was held at the Windsor House, Belfast, July 13, at 7.30 P. M. President West in the chair. A fair number of members responded to the roll-call. The minutes of the previous meeting were read and accepted.

Dr. I. L. Salley read a paper upon "Tetanus," which was freely discussed.

The report of the New Hampshire Cattle Commissioners, in the F. B. Shedd case at Northfield, was read and the conclusions of the Board criticised. We believe that the tuberculin test is the only reliable test for tuberculosis ; that when several tests are made within the year, the first test is the only reliable one. That apparently healthy cows which react by the test are often just as dangerous as some that show the disease by physical examination. And so we believe that the cows released and returned to Mr. Shedd's herd may be just as dangerous as those that were destroyed.

Voted to adjourn and meet at Waterville in October.

I. L. SALLEY, D. V. S., *Sect'y.*

NEWS AND ITEMS.

READ the programme of the Omaha Convention, and ask yourself if you can afford to stay at home.

A HORSE will eat in a year nine times his own weight, a cow nine times, an ox six times and a sheep six times.

"EQUINE PATHOLOGY," by Dr. H. D. Hanson, now in course of publication, is announced for delivery by the middle of September.

FRANK R. HANSON, D. V. S., of New York, reported ill with pleurisy in the June REVIEW, has recovered and is spending a convalescent vacation in the mountains.

DR. E. M. BECKLEY, Meriden, Conn., very narrowly escaped being killed by the kick of a horse on June 1st. After a month's entire disability he returned to his duties.

SECRETARY MORRIS, of the New York State Veterinary Medical Society, was in New York, August 1st, making arrange-

ments for the forthcoming meeting of that organization. Valuable papers are being secured for it.

DR. JOHN ROBERTSON, formerly veterinarian to Second U. S. Cavalry, who recently was commissioned as Second Lieutenant Sixth U. S. Infantry, was seriously, though not dangerously wounded in engagement near Santiago, Cuba, recently.

PROF. JAMES L. ROBERTSON, of New York, known and loved by the profession throughout the country, is in better health than for a long time. He has taken Drs. Eugene Burget and W. S. Ortgies in partnership and jointly they will open a hospital in Ninth Avenue, near Thirteenth Street.

"DOPING" RACE-HORSES, although severely penalized by the racing association in their rules, is said to be on the increase. Such "sport" and such treatment of horses should cease, and the officers of jockey clubs should be held accountable to the association if permitted on their tracks.

WALTER L. BELL, D. V. S., of Brooklyn, New York, who recently enlisted in Troop C and has been stationed at Camp Alger, Virginia, is at his home ill with typhoid fever. He is a general favorite with his officers and comrades and much concern has been felt for his condition, though when the REVIEW went to press he was considered a safe convalescent.

AT the next meeting of the New York State Veterinary Medical Society nominations will be made for a successor to Dr. Huidekoper on the State Board of Veterinary Medical Examiners. A rule has been adopted by the Regents prohibiting teachers in any veterinary school in the State from serving upon such board.

DR. E. H. SHEPARD, of Cleveland, Ohio, recommends pepsin in doses of two to four drachms to horses suffering from acute indigestion, and condemns opiates in the same condition. His views in full on this subject were embodied in a paper presented to the joint meeting of the Ohio and Michigan Associations in July.

A FARMER read the following in an agricultural journal: "A side window in a stable makes a horse's eyes weak on that side; a window in front makes his eyes weak by the glare; a window behind makes him squint-eyed, and a stable without windows makes him blind." Now that farmer wants to know what effect a window without a stable has on a horse's eyes.—(*Trotter and Pacer.*)

A BAD CASE.—The Iowa Health Bulletin publishes, among

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many similar specimens of letters written by "doctors of medicine" in support of applications for pensions, the following: "—, February 20, 1897,—Sur: I surtify I treated the said sujer fum 18888 to Datc—foarmerly his stumik tub was jined to his nervious sistem, but now it air rotted of, cosing grate expectoring and hard of breth. Your Obt. servent. ——— M. D."—(*Globe-Democrat*.)

J. PAYNE LOWE, D. V. S., was reappointed veterinary inspector of the Passaic (N. J.) Board of Health for the term of three years at its meeting held in June. All cattle kept within the city limits as well as the stables have to pass his inspection. Meat and milk inspections are also made by the doctor. It is only a matter of time when every municipality in the country will have its veterinary inspector. Great interest therefore should be given the discussion upon the subject at Omaha next month.

MODERN WAR SURGERY.—The war in Cuba has so far resulted in far fewer casualties than did engagements of like importance in our civil war. The Spaniards are not good marksmen on land or shore. What is quite as important is the fact that among those wounded there will be far fewer deaths than then occurred. Medical discoveries of antiseptic methods of dressing wounds are responsible for this to a very great degree. Injuries which 35 years ago would have surely been fatal are now quickly recovering. And yet this is the hot season in a tropical climate, when without antiseptic treatment almost any kind of an injury would be sure to set up blood poisoning and be certainly fatal.—(*American Horse Breeder*.)

THE LAUGH ON THE VETERINARIAN.—About two weeks ago Liveryman George Bailey purchased a horse from a Stamford dealer. A few days afterward the animal displayed symptoms of sickness, and a well-known veterinary surgeon was called. The case was different from any brought to the veterinary's notice, and as the animal showed no signs of recovery under his treatment, he admitted after several visits that the case baffled his medical knowledge. The matter was fully explained to the satisfaction of every one, excepting, probably, the veterinary, when Mr. Bailey became the owner of another horse Friday night, and the funny part of it all is that the foal is not a horse but a mule. It is said that the next time the medical horseman visits Darien he will become hoarse from asking the boys, "What'll you have?"—(*Connecticut Exchange*.)

EXPORT TRADE.—The war has had no apparent effect upon the export trade in horses except to increase prices. Up to the first of June the statistics at Washington show that for the previous eleven months we exported 46,707 horses at a total value of \$5,620,150. If the exportations in July are an average we shall have an exportation for the year of over \$6,000,000. For the previous period the figures were 35,925 horses at a value of \$4,332,381. This is a highly satisfactory showing. When to this is added the large purchases by the Government of horses which will go to Cuba and Porto Rico which will never come back to this market, it is safe to say that the day of returning prosperity for the breeders is at hand. So far as Kentucky is concerned the surplus common stock is practically all gone and with it out of the way there must be an advance in price of all the grades. Farmers will make no mistake next season in breeding their best mares to good sires. But if they want to breed remuneratively they should breed to well-bred trotting sires of good size and handsome individuality. If they do not get a fast trotter they are likely to get a handsome carriage horse or roadster and in either case it will pay them.—(*Spirit of the Times*.)

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